NCVER National Centre for Vocational Education Research

Doing an apprenticeship: What young people think

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research

Informing **policy** and **practice** in Australia's **training system**

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The National Centre for Vocational Education Research (NCVER) is an independent body responsible for collecting, managing and analysing, evaluating and communicating research and statistics on vocational education and training (VET).

NCVER's inhouse research and evaluation program undertakes projects which are strategic to the VET sector. These projects are developed and conducted by NCVER's research staff and are funded by NCVER. This research aims to improve policy and practice in the VET sector.

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Foreword

This research was undertaken by staff at the National Centre for Vocational Education Research (NCVER) as part of its in-house research program funded through contributions from the Australian Government and state and territory governments.

In recent years skill shortages in the traditional trades have attracted a great deal of interest in the news and in government and industry forums. Some explanations for these shortages relate to the perceived unattractiveness of such jobs as career destinations and negative perceptions in the community about trade occupations by comparison with professional occupations.

This study identifies factors that influence individuals making decisions about whether or not to pursue apprenticeships in the traditional trades. It uses two sources of information—students in secondary schools and current apprentices (including those who have recently completed their training). This study is important because it helps us to better understand the career motivations of secondary school students, the experience of apprentices, and the relevant merits of different approaches for promoting careers in trades to various groups of students. The information gained can be used to focus recruitment drives more sharply and to provide some light on the changes to workplace practice, working conditions and training that may need to occur.

Findings will be of special interest to policy-makers, government employment and training agencies, apprenticeship centres, researchers, careers advisers, teachers, teacher counsellors, VET practitioners, employers and industry organisations.

Tom Karmel
Managing Director, NCVER

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Key messages

This study identifies the factors which explain why individuals enter or do not enter traditional trade apprenticeships.

- Having an intrinsic interest in a trade is the main motivation for taking up or wanting to take up an apprenticeship. Improving the image of the trades among students, teachers and parents would promote a greater interest.
- Most senior secondary school students claim not to be interested in doing an apprenticeship, with students of higher academic ability much less likely to be interested. Students of parents with university degrees were also less likely to be interested. Apprenticeship recruitment drives are likely to be more effective if they target those not planning to go on to higher education. Information should be made available to all students, since over one in three commencing apprentices have completed Year 12.
- The current information and guidance available to school students is a potential barrier to greater interest in apprenticeships among young people. Apprenticeships were not widely promoted at school and specific information was not always easy to obtain. Relatively few students were encouraged by their teachers and counsellors to pursue an apprenticeship.
- Many school students are not attracted to apprenticeships because they believe pay of tradespeople to be too low (by comparison with pay for professionals). In contrast, those part way through an apprenticeship believe the main barrier to continuing is the training wage, which is low relative to what they might earn elsewhere. It is likely that this is a contributing factor to uptake and perhaps to non-completion.
- Those part way through an apprenticeship are very positive about the experience, pointing especially to the enjoyment and challenge obtained from working and learning new skills, and the foundation the apprenticeship provides for good job and pay prospects for the future. Promoting these positive experiences could improve interest in apprenticeships among school students.

Executive summary

In recent years skill shortages in the traditional trades have received a great deal of attention in the press and in government and industry forums. Some explanations for these shortages relate to the perceived decline in attractiveness of these jobs to students as career destinations and the negative perceptions students and their parents have about trade work by comparison with jobs requiring higher education qualifications. Government and industry bodies believe that increasing the number of apprentices will help to prevent further skill shortages in years to come, so it is appropriate to consider the ways in which young people are influenced when deciding on apprenticeship as a career.

This study is concerned with the factors which explain why individuals enter or do not enter traditional trade apprenticeships. More specifically, it aims to present evidence on what influences young people (both students contemplating career pathways and apprentices in training) in making decisions about their futures. This may help to inform career advisers, industry bodies and policy-makers on the merits of different approaches to promoting careers in the trades and the changes that may need to be made to workplace practice, remuneration and training to increase the attractiveness of the trades.

To help us better understand these factors, we obtained information from about 800 apprentices and close to 1600 students in Years 10, 11 and 12 in South Australia. We also held focus group discussions with about 80 students. All of these students came from four high schools in different parts of Adelaide and from one country high school.

Motivation and personal attributes

When apprentices were asked about what had motivated them to enter an apprenticeship, their key reason was having *always wanted to do that type of work*, followed by the view that *with a trade I would always have a job*. Contrary to popular opinion, however, they were not generally motivated to enter traditional trades because of an inability to get into other occupations or training programs. The great majority had chosen an apprenticeship as their first preference. Furthermore, whether it was their first, second or third preference, about 90% of apprentices planned to stay in the trade.

When students were asked what would influence them to enter an apprenticeship, they also most often mentioned *always wanted to do that type of work*, followed by opportunities for making good wages (*with a trade I can make good money*) and getting secure and stable employment (*with a trade I can always get a job* and a *trade is a good base for other careers*).

We also asked for the key disincentive to pursuing an apprenticeship. For apprentices it was *inadequate pay*, while for students it was *never been keen on a trade*.

There is substantial evidence confirming the considerable effect that cognitive ability and social and economic background have on educational attainment and career choice. Generally people with higher levels of cognitive ability will have higher levels of educational attainment, which enable them to move into pathways not typically associated with traditional trade apprenticeships. In this study students reporting high academic ability did not generally opt for apprenticeships. They were

also more likely to be planning to obtain a TER[1] score. Nevertheless, well over a third of apprentices had completed Year 12 and about a fifth of these had obtained a Tertiary Entrance Rank (TER) score. Of these a handful had scored in the top decile.

It is generally the case that students of higher socioeconomic background choose to enter occupations more typically associated with university studies than the trades. Although this argument is supported by our study, the influence of socioeconomic background on student intentions to pursue an apprenticeship is modest.

Apprentices generally report high levels of job satisfaction, with the great majority prepared to recommend an apprenticeship to friends or relatives contemplating career choices. Opportunities for career establishment and progression, continuous and secure employment, and financial, educational, and other personal benefits are given as major reasons for making such a positive recommendation. Nevertheless, we must keep in mind that we have not sought the views of those who have left apprenticeships. Curtain and Cully (2001) report that dissatisfaction with the job rather than the quality of the training was given as the main reason for those leaving contracts of training. Our study also found that inadequate pay, working conditions and arrangements for training were the major reasons for not recommending an apprenticeship to others.

Interpersonal and contextual factors

We were interested to explore the impact of interpersonal interactions on uptake of (or openness to) traditional trade apprenticeships. Students were asked about the extent to which career decisions were influenced by parents, peers, and teachers.

The great majority of students reported not having discussed apprenticeships with parents; nevertheless, 80% of those planning to pursue an apprenticeship had done so. Furthermore, where discussions had been held, students claim that their parents' views did not influence their career decisions. Our analysis of the extent to which the social and economic background of parents influences openness to apprenticeships appears to bear this out. A Victorian study of parental influence on career decision-making has also found that, while parents want to be involved, they feel ill-equipped to help their children in career planning.

Students and teachers do not generally engage in discussions about the suitability of apprenticeships as career options. However, teachers are more likely to advise students of lower academic ability to consider it as an option.

Peers were generally reported to be non-committal about the career decisions of students and apprentices. However, students and apprentices did not place much weight on the views of peers when making their career decisions. Nevertheless, having friends already in or contemplating apprenticeships had a positive influence on apprenticeship uptake.

Bearing in mind that we surveyed students from schools in different locations, we were also interested to find out whether this would have an effect on openness to apprenticeships. Although we found little difference between students who attended metropolitan schools (representing rather different socioeconomic areas), country students were less likely to say *no* to an apprenticeship.

[1] TER (Tertiary Entrance Rank) or its equivalent in other states is a score used as a tool for selection to universities. Not all students who complete Year 12 in South Australia will opt to take examinations or assessments leading to a TER score. Some will just complete requirements for the South Australian Certificate of Education (SACE), which signals the completion of secondary education in South Australia.

Implications

There are various implications we can draw from the findings of this study. First, a trade is not for everyone, especially high academic achievers. Second, students already in a school-based apprenticeship or traineeship are substantially more likely to consider moving into a traditional four-year trade apprenticeship once their schooling has been completed.

Such findings have implications for how apprenticeships are marketed to school students. Promotional campaigns or recruitment drives should concentrate primarily on students outside the high academic achieving group, including those in school-based apprenticeships. However, there is no harm in also providing high achievers with information about apprenticeships as a viable option should other plans not eventuate. Keeping in mind that an apprenticeship had been a second and third option for considerable numbers of apprentices in our study, such a strategy would make sense.

Having peers who are already in or considering taking up apprenticeships has also been found to explain apprenticeship uptake. Making sure that students have opportunities to mix with others who have already decided to enter a four-year apprenticeship or who are already in apprenticeships may be another productive marketing strategy.

There is also a group of students who have not considered apprenticeships because they have not been given enough information or sufficiently accurate information to make a decision. This should be addressed. Keeping in mind that the overwhelming majority of apprentices would recommend an apprenticeship to others, consideration might also be given to inviting such current apprentices to talk to students in career-information sessions.

Many apprentices and students perceive a financial disadvantage (especially in the early years of apprenticeship); recent initiatives to supplement the income of apprentices might redress this.

As many apprentice respondents had completed Year 12 (as their highest level of schooling), there is potential in promoting apprenticeships to students of all academic ability ranges. High achievers may consider apprenticeships if they have sufficient knowledge of the flexibility of articulation pathways between basic apprenticeship qualifications and advanced vocational education and training (VET) and higher education.

Introduction

This study examines what influences young people to decide whether or not to enter a traditional trade. It has its genesis in the current concern about skill shortages in the traditional trades and the common perception (often put forward by government and industry stakeholders) that, if only we were better at promoting these pathways to young people, we could avoid skill shortages in the future.

Knowledge about what influences career choices can be used to help career advisers, industry bodies and policy-makers to evaluate different strategies for promoting careers in the trades. It can also be used to identify changes that may need to be made to workplace practice, remuneration and training.

A context of skill shortages

A comparison of skilled vacancies data with trends in traditional apprenticeship commencements gives us an indication of the current environment of skill shortages in the trades. In addition, surveys conducted by peak industry bodies (Australian Council of Trade Unions, Australian Industry Group) point to continued skill shortages in traditional trades.

Apart from the period of decline during the 1991 recession, trade commencements and skilled vacancies in the trades follow relatively the same trend (figure 1). However, while the number of skilled vacancies has started to drop from 2004, the number of commencements has continued to increase.

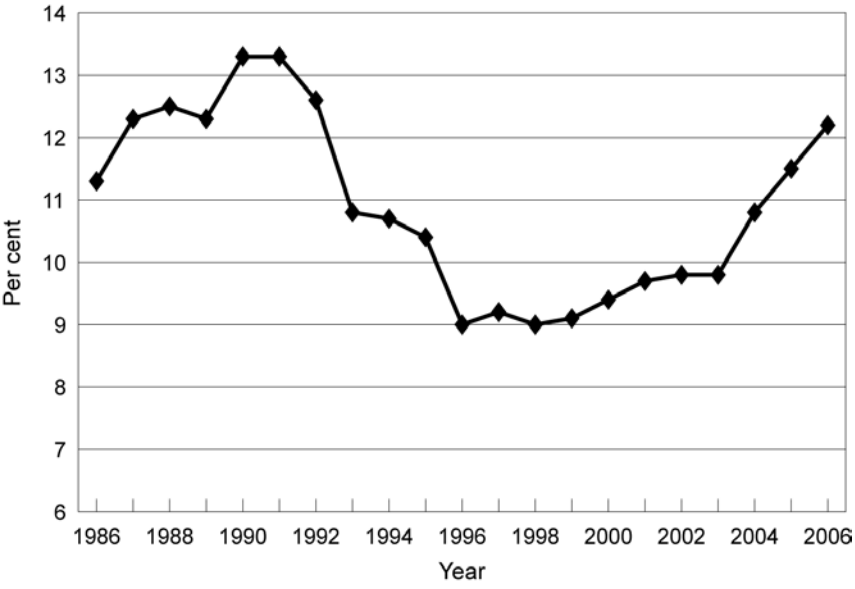
In looking at the trade training rates (the number of apprentices in training as a percentage of the total number of employed persons in the trade occupations), we see a downward shift following the 1991 recession; the rate has not yet recovered to pre-1991 levels (figure 2). A report by Toner (2003) suggests that this decline is not attributed to a weaker demand for trade skills but appears to be related to 'economic cycle and industrial and/or occupationally specific factors' (Toner 2003).

Figure 1 Traditional apprenticeship commencements and skilled vacancies index (all trades), 1986–2006

Note: Data on skilled vacancies have been taken from the Department of Employment and Workplace Relations skilled vacancy reports.

Source: Data for the years 1985 to 1995 have been estimated by NCVER and are based on NCVER (2001). Data from 1996 onwards are sourced from the NCVER National Apprentice and Trainee Collection, September 2006 estimates, unpublished data.

Figure 2 Trade training rates for traditional apprentices 1986–2006



Note: Trade training rates have been calculated using data on the number of employed tradespersons from the Australian Bureau of Statistics (ABS 2006).

Source: Data related to 1985 to 1995 have been estimated by NCVER and are based on the NCVER (2001). Data from 1996 onwards are sourced from the NCVER National Apprentice and Trainee Collection, September 2006 estimates, unpublished data. It includes only apprentices 15 aged years and over.

Key factors of interest

The specific aim of the study was to obtain evidence of key factors underpinning the career choices of individuals (especially young people). The three major areas of interest were: personal attributes, interpersonal interactions, and environmental and contextual factors. Personal attributes, including

career motivation, cognitive capacity or ability, and socioeconomic backgrounds, have been shown to influence the career decisions of individuals. We expected that, in the main, students (and especially females) would not be attracted to traditional trade occupations, and that those who chose to enter an apprenticeship would have a lifetime interest in the type of work that was involved. We also hypothesised that those of higher ability and those from higher social or economic background would prefer professional careers. Other environmental and contextual factors were also of interest.

Career motivation

A career in the traditional trades does not appear to be attractive to young people, particularly females. Just 21% of males and 3% of females in the 14 to 19-years age cohort entered a traditional trade apprenticeship in 2003. In addition, just a third of young people express some intention to enter vocational studies (Rainey, Simons & Pudney 2006), while the majority perceive vocational education and training (VET) to suffer from an 'image problem' and the traditional trades to be 'uninformed by new knowledge or technologies' (Alloway et al. 2004).

Cognitive ability

Information from the Longitudinal Survey of Australian Youth (LSAY)[2] indicates that cognitive ability has an influence on apprenticeship uptake (Lamb, Long & Malley 1998). These researchers found that about 25% of males and 4% of females in the lowest quartile of achievement went into apprenticeships, compared with 11.3% of males and 2.3% of females in the highest quartile of achievement. Where almost two-thirds of males and three-quarters of females in the highest quartile of achievement went into higher education, this was the case for just 2% of males and 8.9% of females in the lowest quartile of achievement. Thomson (2005) also noted that level of academic achievement was a key driver of course participation, with lower achieving students more likely to be undertaking a vocationally oriented course, and higher achieving students, more advanced academic courses.

Socioeconomic background

Analysis of the Longitudinal Survey of Australian Youth data (Lamb 1996, 1997; Lamb, Polesel & Teese 1995; Ainley 1998; Thomson 2005; Khoo & Ainley 2005) also confirms the influence of socioeconomic background. Apparent retention rates to Year 12 for males and females from unskilled socioeconomic backgrounds have fallen and are considerably lower for these groups than for those from professional backgrounds. Research in the area of career development and psychology also highlight the role of the family in career choice and development (Alloway et al. 2006; Hughes & Thomas 2003).

Collecting the evidence

It was important for us to learn from those who had experienced what it was like to work as an apprentice in the traditional trades. This would provide evidence on the key factors that had led a particular group of individuals to pursue an apprenticeship. We decided to collect this information via questionnaire surveys. Keeping in mind that apprentices in training do not represent the whole population of young people (in terms of career interests, cognitive ability, or socioeconomic background), it was important to ensure a more representative sample. This was done by including secondary school students in Years 10, 11 and 12 in our study.

[2] This survey uses achievement in tests of literacy and numeracy of students at the age of 14 or 15 years and tracks the post-school destinations of participants.

Information from students was collected via questionnaire surveys and focus group discussions. The questionnaire surveys allowed us to sample a large number of apprentices and students, while the focus groups allowed us to engage in a more personal way in discussions which would subsequently be used to clarify and supplement survey findings. Appendix A provides specific details on the methodology used.

Survey of apprentices

Information from apprentices in contracts of training in South Australia was collected via direct mail questionnaire.[3] A stratified sampling methodology ensured an even spread of apprentices across the Australian Standard Classification of Occupations (ASCO)[4] major group for trades and related workers (that is, level 4). This method yielded a total of 837 responses from current and recently completed apprentices (see appendix B, table B1.1) and represented a 31% response rate for the total group. In the main the response rate for the different trade occupations was just over 30%; however, response rates for fabrication engineering apprenticeships, food tradespersons and plumbers were slightly lower (see appendix A). The overwhelming majority (86%) of respondents were male. Respondents had an average age of 21 years, with males having a higher average age than females (see also appendix B, table B1.1). However, about 13% of respondents were aged 25 years or over. They were almost evenly divided between those in the first two years of their apprenticeship and those in the latter two years (see appendix B, table B1.2), with close to 90% having completed their first year (see appendix B, table B1.2). However, second year apprentices followed by third year apprentices accounted for the two largest groups (32.1% and 26.9%, respectively). A substantial group (8.6%) had recently concluded their apprenticeships when they completed the survey. (In the remainder of the report we will use the term 'apprentices' to refer to both current and recently completed apprentices.)

Survey of secondary school students

Information from secondary school students was collected via two methods. First school administrators arranged for home teachers of Years 10, 11 and 12 to administer on our behalf a written questionnaire which, when completed, was to be returned to us for subsequent analysis. A small group of students from each of Years 10, 11 and 12 was asked to participate in on-site focus groups on a predetermined day during the school term.

A total of 1562 students from five secondary schools in South Australia (one from each of eastern, western, northern and southern suburbs of Adelaide and one school from a country region) responded to the questionnaire survey. The largest group of respondents was from Year 10 (43.2%) followed by Years 11 (32.9%) and 12 (23.7%). Females represented over half (51.9%) of the total group. Students in Year 10 were evenly divided between males and females, while there were slightly more females in Year 11 and considerably more in Year 12 (see appendix B, table B1.3).

Focus group discussions

A total of 78 students participated in focus group discussions on career aspirations, knowledge of apprenticeships, parental influence and suggestions for attracting students to apprenticeships.

[3] Permission to use details for mailing out questionnaires to apprentices was provided by the Apprenticeship and Traineeship Services Branch of the South Australian Department of Further Education, Employment, Science and Technology.

[4] The 2nd edition of ASCO was used.

Organisation of the remainder of the report

In the remainder of the report we discuss in more detail the reasons students and apprentices give for pursuing or not pursuing apprenticeships; the influence of personal attributes (educational attainment, ability and social economic background) on apprenticeship uptake or openness to apprenticeships; the experience of current apprentices; and conclusions and implications derived from the findings.

What people claim motivates or inhibits their intentions to pursue apprenticeships

In exploring the key motivational factors that could be used to explain apprenticeship uptake we used information from three sources: the student survey, the apprenticeship survey and focus groups with students. The student survey provided detailed information on the types of jobs students aspired to, student plans to pursue or not to pursue a traditional trade apprenticeship, and reasons for this. Focus groups with students also helped to clarify some of these issues. The apprenticeship survey provided information on why apprentices had taken up an apprenticeship and what may have inhibited them from doing so.

It became clear that an abiding interest in the type of work performed in an occupation combined with perceptions of job security were key motivational forces. This was the case both for apprentices and for students who were either planning or not planning to enter apprenticeships. Factors that militated against the uptake of apprenticeships, both for apprentices and students, were mainly associated with financial disadvantage and working conditions.

In this section and the sections that follow we discuss findings which pertain to a particular area of interest from each of the surveys and focus groups. Findings emanating from student focus groups are specifically identified; in all other cases findings from students and apprentices come from their respective questionnaire surveys.

Student career aspirations

When students were asked to write the name of the job they wanted to do when their education was complete, the largest group (almost half) listed occupations associated with the professions and para-professions. The largest group wanted to work as professionals (that is, teachers [primary and secondary], designers and illustrators, psychologists, lawyers, engineers [civil, electrical and electronic], nurse educators and managers, computing specialists, general practitioners, accountants, scientists [natural and physical sciences], architects, physiotherapists, musicians and actors and dancers). This was followed by those who wanted to work in the trades (most frequently as motor mechanics, electricians, carpenters and joiners, plumbers, and hairdressers), and those who wanted to work as associate professionals (most frequently as chefs, police officers, hotel and motel managers, and elite sportspersons).

When students in focus groups were asked what job they wanted at the end of their schooling, they also described a variety of occupations. Just a small group indicated that they wanted to work in the trades and related areas (as electricians, cabinet-makers, motor mechanics, firemen, or truck drivers) and as managers (including in hospitality, retail, or business). Another smaller group wanted to work as either childcare workers, administrative assistants or road workers. However, students most frequently talked about wanting to work as professionals and para-professionals.[5]

[5] Including as electronics and mechanical engineers and technicians, scientists (including agricultural and environmental), accountants, stockbrokers, photographers, elite sportspeople (AFL footballers, professional soccer and tennis players, and motor bike racers), singers, school teachers (including singing teachers), doctors, optometrists, social workers, nurses, dancers, journalists, actors, lawyers, pilots, flight attendants, architects, graphic designers, computer technologists, sound engineers, library technicians, legal assistants, beauty therapists, police officers ('star force' and/or in police band).

Table 1 Career aspirations of students by occupational grouping

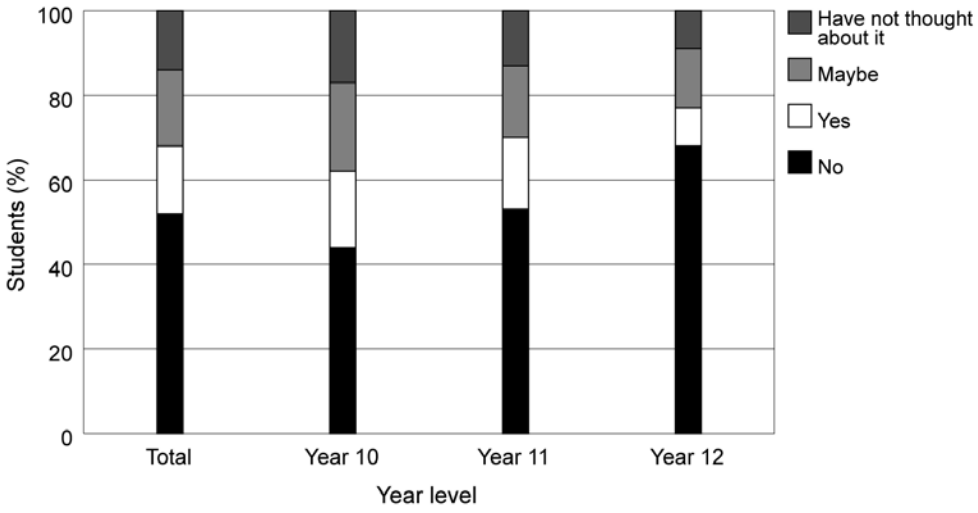
Career aspirations of students	No. of students	% of students
Managers and administrators	25	1.6
Professionals	712	46.2
Technicians and associate professionals	158	10.2
Tradespersons and related workers	214	13.9
Advanced clerical and service workers	18	1.2
Intermediate clerical, sales and service workers	99	6.4
Intermediate production and transport workers	4	0.3
Elementary clerical, sales and service workers	7	0.5
Labourers and related workers	5	0.3
Other*	88	5.6
Not reported	232	15.0
Total	**1562**	**100.0**

Source: Student survey

Student plans for pursuing apprenticeships

When students were asked whether or not they planned to pursue a traditional trade[6] the majority said *no*; 15% of students replied *yes,* another 16.5% replied *maybe*, and just over an eighth said *have not thought about it* (see figure 3).

Figure 3 Students by year level and plans to enter an apprenticeship



Note: Graph does not include the small number of 'not reported' cases.
Source: Student survey

This information was pivotal to our understanding of the factors that might predispose individuals to enter an apprenticeship. It allowed us to analyse responses in terms of openness to apprenticeships (that is, in terms of *yes* only responses, or *yes* responses combined with *maybe* responses). It also allowed us to analyse findings in terms of those who had no plans to enter an apprenticeship, and those who had not *thought of the idea*, either in combination or as separate groups.

[6] The question also gave students a description of the occupations that comprise the traditional trades.

There was just 0.04% of students who indicated current participation in school-based or some other type of part-time Australian Apprenticeship.[7] Of these, just under 60% were male. These students were much more likely to be open to the idea of an apprenticeship than students in general, and 30.5% were intending to convert their school-based apprenticeship to a full-time traditional apprenticeship on leaving school.

Perceived motivators

Students who were open to an apprenticeship (that is, those who said *yes* or *maybe*) were asked to give reasons for their decision. Apprentices were also asked to identify what had influenced them to undertake an apprenticeship.

Career interest and job security

When apprentices indicated the key reason that had persuaded them to enter an apprenticeship, they mostly said two things: *I always wanted to do that type of work*, followed by *With a trade I can always get a job* (see appendix B, table B1.4). Individual and small groups of apprentices also referred to reasons related to career interest and job security (for example, *loved hair, had an intense interest in food and cooking,* an *alternative career to university*, a *good career option* and *guaranteed full-time work*).

When students were asked what might lead them to take up a traditional trade apprenticeship, they also referred to having an intrinsic interest in that *type of work*. Individual and small groups of students also spoke about career interests and future benefits (for example, interest in the field, skills development, enjoyment, comfortable life style). The few students in focus groups who wanted to pursue a traditional trade reported having always been keen on the type of work done in their desired trade. The need to have a keen interest in the work was highlighted in the words of one young man who said: *Usually the person who pays you doesn't want to do the job for themselves, you need to want to do it … if you have a passion for laying bricks then that's what you do.*

Pay and conditions

Although students in general were three times more likely than apprentices to indicate that the ability to *make good money* in a trade would persuade them to pursue an apprenticeship, those who had decided against an apprenticeship were most concerned about pay and conditions.

When students who were not interested in or had not considered pursuing a trade apprenticeship were asked to indicate the factors that would encourage them to consider an apprenticeship, they commonly replied *pay apprentices more money (*42.4%). This was followed by *make the working environment more attractive*, *improve the status of the tradesperson,* and *pay tradespersons more money* (21.1%, 16.5% and 15.8%, respectively). Individual and small groups of students wanted improved working conditions (for example, *a free car for apprentices*, *more friendly work environments, better or shorter hours, easier entrance requirements, easier tasks, reduced contract duration, improved options for females, a guaranteed job at the end of the apprenticeship, being available to travel, and improved and respectful treatment*). There was also a perception among focus group students that trades were associated with low pay, poor working conditions and were of a lower status than professional occupations.

Perceived disincentives

Students who responded *no* or *had not thought about it* were asked to indicate reasons for this. Apprentices were asked to reflect on the factors that may have discouraged them from entering an apprenticeship.

[7] Twenty-three students were in Year 10; 25 students in Year 11 and 11 students in Year 12.

Perceived financial disadvantage and working conditions were the main concerns of students who had either decided not to pursue an apprenticeship or had not considered it. These had also concerned apprentices when they were making their career plans (see appendix B, table B1.5).

Financial disadvantage

By far the main barrier identified by male and female apprentices related to financial issues (for example, *more money being available in other jobs,* followed by *training wage not being much more than the dole*). Comments like the following highlight the difficulties resulting from low apprenticeship pay for young apprentices.

> Wages [are] poor especially if living away from home or with financial commitments.
>
> I didn't have enough money to eat or get to work.
>
> $6.50 an hour. Do you think you could live on that?

Adult apprentices were especially concerned about how they would maintain their other financial commitments.

> I would not have accepted [an apprenticeship] if I had to drop wages. I already had a mortgage.
>
> As I'm an adult apprentice having a mortgage to pay for each week [the money] is not enough.
>
> As a mother of two I would be better off on the dole.

Those students who specifically indicated that they were not planning to pursue an apprenticeship or that they had not given it any thought responded that better remuneration for apprentices and tradespersons might entice them to enter an apprenticeship. Others were inhibited from entering an apprenticeship because they believed *apprenticeship pay is less than other jobs* and *tradespersons' pay is not high enough*. A small group of students had not considered an apprenticeship because they had not received enough information about it.

In 2005 the Youth Allowance benefits were extended to apply also to apprentices. This allowance takes into account the current wage of the apprentices, and if living at home, the financial circumstances of parents.

Inadequate training and employment arrangements

By contrast, the length of the training programs, combined with poor working conditions and unsuitable working hours, were identified as potential barriers by about a fifth of apprentices. These were followed by further concerns about low rates of pay, the quality of training support, and location of the nearest training facility. A scarcity of opportunities for apprenticeships (especially in rural areas) and age-related factors (either being *too old* for apprenticeship or *too young* to start an apprenticeship) were also cited by apprentices. Students were also concerned about unattractive working hours.

Students in focus groups spoke of their perceptions of the poor working conditions that were associated with apprenticeships. For the most part these perceptions were based on hearsay, with few students reporting that their parents, relatives or friends had told them about the undesirable conditions they had experienced. Students voiced concerns about poor pay, harassment, dirty jobs, and unsuitable hours (especially for chefs). One student who had had a bad experience in her hairdressing course reported *people think that apprenticeships help you learn … but it is just about observing.* Another noted that apprenticeships were *smelly and dirty and more male orientated … people wouldn't take [a woman] seriously if she was in construction … what person would want a girl to do their plumbing.* The perception that access to the right training and equipment might be denied was also highlighted by students in focus groups as possible inhibitors to apprenticeship uptake.

Poor image of the trades

A small group of apprentices noted that the poor image of the trades, including the risk of poor treatment by employers and work colleagues and the prospect of dirty, unappealing or uninteresting work, may have acted as a disincentive in the beginning. Individuals reported cases where teachers had underscored this perception by their negative attitudes. *One teacher told me I was wasting my talent* noted one apprentice. Another reported *school teachers thought trades weren't worth the bother and I could do something better*. Students in focus groups also noted the poor image of the trades as a disincentive to pursuing an apprenticeship. *Some uneducated people who don't know about it turn their noses up at people who have gone through tech school* commented one student. Another noted *the more academic jobs have a better status and that's what kids like … people think apprenticeships are not posh*. Perceptions of workplace safety hazards and harassment issues and the need for excessive amounts of hard physical work were also raised in focus groups.

Lack of interest in trades

Interest in alternative career paths and family or other social commitments were reported by apprentices to be a key disincentive for would-be apprentices.

As expected, students cited lack of interest in the trades as a key inhibitor. For example, students who had not been interested in or who had not considered entering a trade apprenticeship reported that the key reason for not pursuing an apprenticeship was that they had *never been keen on a trade.* This pattern was similar for Years 10, 11 and 12.

Lack of adequate information

Students cited lack of information about apprenticeships as a key reason for not entering an apprenticeship, a factor also noted by a small group of apprentices (14.8% and 1.4%, respectively). Apprentices and students both cited the lack of promotion of apprenticeships and information about apprenticeships as additional disincentives. Although just a small group of students in focus groups understood some of the specific details of the requirements of an apprenticeship, the great majority of students tended to know only how to access general career information.

Factors explaining uptake of apprenticeships

We wanted to better understand the factors explaining uptake and openness to apprenticeships and examined the role of educational attainment, ability and socioeconomic background. Interest in pursuing apprenticeships and their uptake were expected to be dominated by those with lower levels of schooling and individuals from the lower ranges of academic ability. Those from higher socioeconomic backgrounds were expected to be less likely to pursue an apprenticeship.

Educational attainment

Commencing apprentices tend to have higher levels of schooling than they did a generation ago. This is reflected in our figures. Four-fifths of apprentice participants in our study were evenly divided between those who had either completed Year 11 as their highest level of secondary schooling and those who had completed Year 12 (see appendix B, table B1.6). Although the proportion of apprentices in our study with Year 11 as their highest level of schooling approximated that for South Australia as a whole (see appendix B, table B1.7), there was a substantially greater proportion of Year 12s and a lower proportion of Year 10s in our study than was reported for South Australia in general.

Comparing the educational attainment of apprentices with the extent to which they have chosen an apprenticeship as their first, second or third preference can help to shed light on whether or not there is much point in appealing to those with higher levels of educational attainment (table 2). The majority of apprentices in our study (67.9%) report that an apprenticeship was their preference of first choice (more so for Years 11 and 10 completers than for Year 12 completers). However, there are substantial groups of Year 12 completers for whom an apprenticeship was the second or third choice (see appendix B, table B1.8).

Table 2 Preference for an apprenticeship, by level of schooling

	Year 12	Year 11	Year 10	Year 9 or below
	%	%	%	%
First preference	56.7	73.6	73.1	66.7
Second preference	25.5	16.5	13.5	14.8
Third preference	15.4	8.1	10.6	18.5
Not reported	2.4	1.9	2.8	0.0
Total %	**100.0**	**100.0**	**100.0**	**100.0**
Total no.	**337**	**322**	**141**	**27**

Source: Apprentice survey

About 90% of apprentices in our survey were planning to stay in the industry regardless of whether they entered the trade as a first, second, or third preference (see table 3).

Table 3 Apprentice intentions to stay in the industry

	First preference	Second preference	Third preference or lower
	%	%	%
Work in the trade	58.6	51.6	49.5
Start my own business in the trade	14.6	16.6	10.3
Continue with the trade and do more studies	18.9	23.6	27.1
Get a job in a non-related area	6.4	6.4	10.3
Undertake full-time further education and training	1.6	1.9	2.1
Total %	**100.0**	**100.0**	**100.0**
Total no.	**550**	**157**	**97**

Note: 33 apprentices did not respond to the question and percentages are calculated on the number of known responses.
Source: Apprentice survey

When students in Years 10, 11 and 12 were asked to indicate the stage at which they expected to leave school, close to 90% said that they intended to leave school at the end of Year 12 (see appendix B, table B1.9)

Cognitive ability

We expected that cognitive ability would have some bearing on apprenticeship uptake, typically that those with higher cognitive ability would not be attracted to apprenticeships. For apprentices, we gauged cognitive ability from actual TER[8] scores achieved and self-ratings of academic ability. We gauged cognitive ability for students from their intention to obtain a TER score, their anticipated TER scores, and their self-ratings of academic performance. Our expectations were generally confirmed.

Apprentices

Just 20% of apprentices had achieved a TER score. Of these 15.9% achieved a score of 50 or below, 72.6% had obtained a score which ranged between 61 and 80, and 11.5% gained a score of between 81 and 100. (A small group scored over 90; 27.5% did not provide a TER score.) Over half of the apprentices rated their academic ability as average, just over a third as above average and a small group (about 5%) as either well above average, or below average (see appendix B, table B1.10).

Students

Over 70% of students were planning to achieve a TER score (see appendix B, table B1.11). Senior secondary students were less optimistic about projected TER scores. For example, where almost 70% of Year 10s thought they would obtain a score of 81 or more; this was the case for 57.6% of Year 11s and 40.2% of Year 12s (see appendix B, table B1.12).

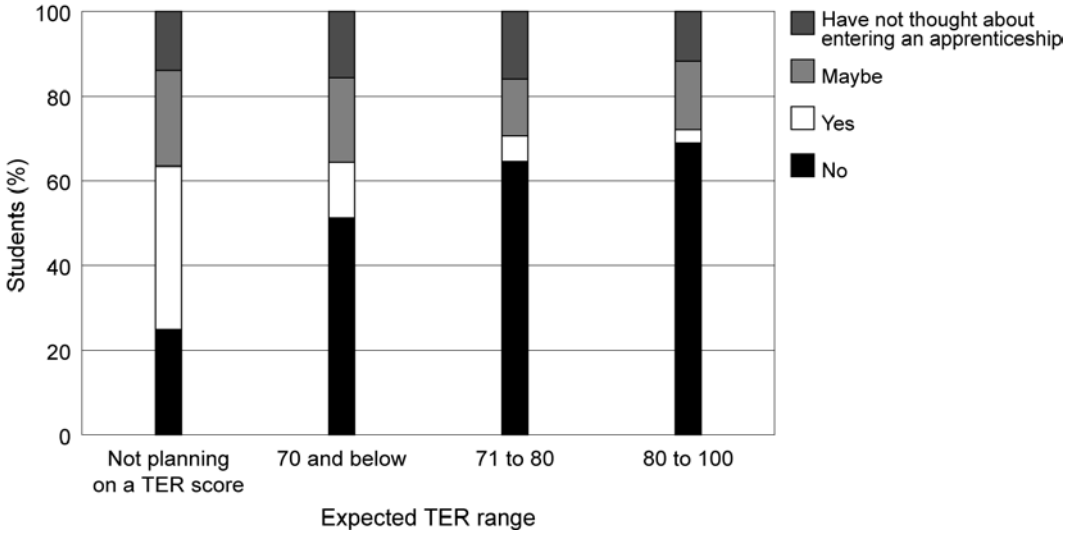
Students planning to achieve a TER score were far more likely to say *no* to an apprenticeship than those not planning to achieve a TER score. Nevertheless, almost a quarter of those not planning to achieve a TER score said *no* to apprenticeships.

Although the majority of students across all self-projections of TER score ranges were not planning to enter a trade apprenticeship, this was most true of those in the highest self-projected score range

[8] TER (Tertiary Entrance Rank) or its equivalent in other states is a score used as a tool for selection to universities. Not all students who complete Year 12 in South Australia will opt to take examinations or assessments leading to a TER score. Some will just complete requirements for the South Australian Certificate of Education (SACE) which signals the completion of secondary education in South Australia.

(80 to 100). Nevertheless, among those in the lowest score range, almost half are not planning on an apprenticeship (see figure 4, and appendix B, table B1.13).

Figure 4 Student plans to pursue apprenticeships by expected TER scores



Note: Graph does not include 'not reported' cases; these are provided in the detailed table in appendix B, table B1.13.
Source: Student survey

A similar pattern is observed when students are asked to rate their academic performance, with higher achievers less likely to pursue an apprenticeship (see appendix B, tables B1.15, B1.16).

Parents' educational attainment

How does educational attainment of parents influence children's decisions to pursue an apprenticeship? Apprentices in our study reported their fathers as having higher educational attainment than their mothers. Over 60% of fathers had completed Year 12 and above compared with just under 40% of mothers. About a third of fathers were reported to have a trade certificate (see appendix B, table B1.17).

We expected to find that students whose parents had the highest qualifications would be the least likely to say *yes* or *maybe* to an apprenticeship and the most likely to say *no*. Students of fathers or mothers who had completed a university degree or higher were the most likely to say *no* to apprenticeships (see appendix B, tables B1.18 and B1.19, respectively).

Parents' occupation

Considering the substantial evidence of socioeconomic background in predicting educational attainment, we contended that this too would influence students' decisions to pursue apprenticeships. As a result students whose parents were from occupations typically associated with higher levels of skills[9] were expected to be less likely to opt for an apprenticeship.

Apprentices reported a great variety of parental occupational categories (see appendix B, table B1.20), with almost 40% reporting fathers to be or have been tradespersons. This might indicate that sons might follow in the footsteps of their fathers.

[9] These occupations were first mapped to the ASCO index at the six-digit level, and then analysed in terms of the first-digit level.

Students also reported a range of occupational categories for parents (see appendix B, table B1.21). Students who were most likely to say *yes* to an apprenticeship were those who reported fathers with occupations at lower Australian Standard Classification of Occupations (ASCO) skill levels (that is, major group level 4 and below).[10] Conversely, those who reported fathers with occupations at the higher ASCO skill levels (levels 1 to 3) were most likely to say *no*. The pattern was less clear for mothers. Appendix B, table B.1.22 provides information on student plans to pursue an apprenticeship by reported occupational background of fathers and appendix B, table B1.23 reports this information for mothers.

Details on the diversity of reported parental occupations are reported in appendix C.

Results of statistical modelling

We measured the impact of personal attributes and contextual factors on students' decisions to enter or not enter a traditional apprenticeship by fitting a logistic regression model to student responses about their plans to pursue an apprenticeship. The predictive model we used was based on the likelihood of students saying *no* to an apprenticeship, as it was found to be more robust than the predictive model based on the likelihood of students responding *yes* or *maybe* to an apprenticeship. We used father's occupation (or mother's occupation if father's occupation was not provided) and mother's highest educational attainment (or father's highest educational attainment if mother's was not provided) as indicators of students' socioeconomic background.[11] We also used other personal attributes such as self-perceptions of ability, plans to obtain a TER score, gender and current year level at school. Demographic location of the school was also taken into account.

Not surprisingly, the predicted probabilities in table 4 indicate that a student's likelihood of deciding not to pursue an apprenticeship is higher for female students. Year 12 students (who are more likely to be bound for university) are more likely not to pursue an apprenticeship than Years 10 and 11 students. In terms of socioeconomic background, parents' occupational and educational backgrounds have a modest impact on a student's decision to pursue an apprenticeship. Students with parents from lower skill level ASCO occupations and who have trade qualifications are the least likely to say they will not pursue an apprenticeship. Students' ability also has a strong impact on career decision-making. Those who perceive themselves to be of high academic ability are most likely not to pursue an apprenticeship. Although little differences were found between students from different metropolitan schools, country students were least likely to say *no* to an apprenticeship. This pattern was the same when controlling for ability levels. To account for differences in retention to Years 11 and 12 between the different schools, a separate logistic regression for Year 10 students only was conducted. This returned a similar pattern of results.

[10] ASCO skill level categories provide a hierarchy of occupations according to level of skill required for the occupation. Level 1 comprises managers and administrators; level 2, professionals; level 3, technicians and associate professionals; level 4, tradespersons and related workers; level 5, advanced clerical and service workers, level 6, intermediate clerical sales and service workers, level 7, intermediate production and transport workers, level 8, elementary clerical, sales and service workers, and level 9, labourers and related workers. We used ASCO classifications as the Australian and New Zealand Classification of Occupations (ANZSCO) classifications were yet to come into effect when our data were analysed.

[11] If information on occupation for both fathers and mothers were not available, these cases were withdrawn from the regression. We did the same for those cases where information on education attainment for both parents was not available.

Table 4 Predicted probability of school students rejecting an apprenticeship pathway

Influencing factor	Predicted probability of rejecting apprenticeship
Parents' occupation (by ASCO)	
Managers and administrators/Professionals	0.620
Associate professionals	0.569
Tradespersons and related workers/Advanced clerical workers	0.572
Intermediate, sales and service workers/Intermediate production and transport workers	0.490
Elementary clerical, sales and service workers/Labourers and related workers	0.477
Parents' highest education level	
University	0.572
VET/TAFE	0.656
Trade	0.491
Year 12	0.629
Did not complete high school (Year 11 & below)	0.526
School	
North	0.582
Country	0.452
South	0.595
East	0.616
West	0.576
Gender	
Male	0.505
Female	0.770
Self-perceived ability level	
At a very high level	0.742
At a high level	0.625
OK	0.516
Not so well	0.539
Not very well at all	0.314
Planning to get a TER	
No	0.308
Yes	0.658
Year level	
12	0.714
11	0.553
10	0.475

Note: 1 We used father's occupation and mother's highest level of education. Where these were not known, we substituted mother's occupation and father's highest level of education if these were provided.
2 These occupational groupings were aggregated into five groups based on skill level defined by the ABS (see appendix for further explanation/information).

Source: Student survey

The influence of parents, peers and teachers

There is a common perception that the views of parents are often reflected in the behaviours and beliefs of their children. Peer groups, especially during adolescence, are also thought to exert a powerful influence. Another perception is that teachers act as strong role models for young people trying to get a sense of what is important in life. Bearing this in mind, it is useful to look at these interpersonal interactions to get an idea of how much these three groups influenced the decisions of those contemplating career choices. Students reported that their parents were generally supportive of what they wanted to do with their lives. They also indicated that, unless peers were in or contemplating an apprenticeship themselves, they were not very interested in the career trajectories of others. Teachers were reported as being quite ambivalent about the issue.

Parents generally supportive or impartial

When we asked apprentices how their parents had reacted to their decision to take up an apprenticeship, 82.8% reported that their parents had *liked the idea*. Just a small group (2.2%) reported that their parents *did not like the idea*, and 14.9% that their parents *did not mind one way or the other*.

Only a third of students had discussed the possibility of their pursuing an apprenticeship with their parents. However, 80% of all students who said *yes* to an apprenticeship had done so. Across all school year levels, between 40 and 50% of parents who had taken part in these discussions were reported to have *encouraged them*, with Years 10 and 11 parents being far more likely to do so than Year 12 parents. Close to 10% were reported to have discouraged students from the idea, while the remainder neither *encouraged nor discouraged* students (table 5). This indicates that about 90% of students across the year levels reported that parents had either supported, not objected to, or been impartial to the possibility of their children pursuing an apprenticeship. Students in focus groups also seldom indicated that parents objected to the pathways their children had chosen. One student reported that his father had told him that a trade would *not be a cost-efficient option* because he was too slow in getting things finished. Another student reported that her parents would support any decision as long as she did not have to go interstate to study.

Table 5 Reactions of parents to the possibility of their children entering an apprenticeship as reported by their children

	Year 10	Year 11	Year 12
	%	%	%
Parents encouraged uptake	50.0	46.2	39.6
Parents did not encourage uptake	9.9	10.9	13.1
Parents did not encourage or discourage uptake	38.7	42.3	47.3
Not reported	1.4	0.6	0.0
Total	**100.0**	**100.0**	**100.0**
Total no. of students discussing apprenticeships with children	222	156	91

Source: Student survey

Students reported that in the main parents did not *encourage or discourage* them from their intentions (table 6, and appendix B, table B1.14). However, parents of students expecting the lowest range of TER score (that is, 70 or below) were reported to be most likely to be supportive. Those who were reported as the least likely to be supportive were those whose children's projected TER score was between 71 and 80 points. These parents were also most likely to be reported as having discouraged their children from entering apprenticeships.

Table 6 Parental attitudes to children entering apprenticeships by expected TER score range of students

	Encouraged	Did not encourage	Did not encourage or discourage	Not reported	Total	
	%	%	%	%	No.	%
No TER plans	62.5	5.0	31.7	0.8	**240**	**100**
Plans for a TER	29.8	16.9	52.4	0.9	**225**	**100**
70 and below	39.1	17.4	43.5	0.0	**46**	**100**
71 to 80	24.3	21.6	51.4	2.7	**74**	**100**
81 to 100	28.9	13.4	57.7	0.0	**97**	**100**
Unknown	37.5	12.5	50.0	0.0	**8**	**100**
Not reported	50.0	25.0	25.0	0.0	**4**	**100**
Grand total	**46.7**	**10.9**	**41.6**	**0.9**	**469**	**100**

Source: Student survey

In the main students reported that parents did not discourage them from entering an apprenticeship, with those who did not plan on a TER score most likely to indicate parental encouragement. In addition, students intending to leave at the end of Year 10 or 11 (78.3% and 67.1%, respectively) were more likely to report that their parents encouraged them to seek an apprenticeship. Interestingly, there were no parents whose children were preparing to finish school at the end of Year 10 reported to have discouraged their children from pursuing an apprenticeship. Moreover, parents of students intending to leave at the end of Year 12 were reported as most likely to *neither encourage nor discourage* their children from pursuing an apprenticeship.

Students in focus groups also reported parents to be generally supportive of whatever career path was desired by their children.

Why some parents object to apprenticeships

About 10% of parents were reported to have discouraged their children from pursuing an apprenticeship. A variety of reasons were given and, of these, the most frequent referred to parental wishes for their children to stay in education (that is, to go on to university or technical and further education [TAFE] studies, or remain in school to complete their secondary schooling). Students reported that parents also wanted their children to *study hard* and to get an education so that they could get jobs with better money. Other non-encouraging parents were reported to have warned their children not to do an apprenticeship because there was *not enough money in it*, and because the hours were *no good* (especially for the hospitality trades). Individual students reported parents having told them that it would be a *waste of time* and *not a good idea*. Others reportedly wanted their children to undertake a more *challenging career,* or *to do a job they would enjoy*. Still others were reported to prefer to leave their children to make their own decisions. Individuals also stated that parents had not received enough information to be able to talk about it properly. This view is supported by the findings of a Victorian study (Bedson & Perkins 2006) which found that, while 97% of parents felt it important to be involved in their child's decision about what to do after leaving school, 77% felt that they did not know enough to do so.

It was also rare for students in focus groups to claim that their parents would object to their pursuing an apprenticeship or any other career. Across the board (with few exceptions) students

reported that their parents would *support whatever I want to do*. Exceptions included cases where students would have to leave home to access training and where the student was expected to move into the family business.

Slight impact of parental views on students' decisions

Just a small proportion of students (12.1%) reported that they would be influenced to a *great extent* by parental views (table 7). Students were almost evenly divided between those who said that parental views would affect their decisions *to some extent* and those who replied that these views would affect their decisions to *little or no extent* (40.3% and 37.5%, respectively). Although over 33% of all students replied that they would be influenced by parental views *to some extent*, Year 10 students were slightly more likely to respond in this way.

Table 7 Extent to which parental views affect student decisions to take up apprenticeships by year levels

	Year 10	Year 11	Year 12	Total
	%	%	%	%
To a great extent	12.0	13.0	11.1	12.1
To some extent	44.1	37.3	37.7	40.3
To little or no extent	35.2	38.7	39.9	37.5
Not reported	8.7	11.1	11.3	10.1
Total	**100.0**	**100.0**	**100.0**	**100.0**
Total number of students	**676**	**515**	**371**	**1562**

Source: Student survey

Peers generally supportive or non-committal

We wanted to discover whether having friends already undertaking or contemplating an apprenticeship would be an influencing factor in people's decisions to pursue an apprenticeship and expected those with such friends to be more inclined to take up an apprenticeship. Our expectations were confirmed by findings that 66% of apprentices had friends already in or considering entering an apprenticeship at the time they were making their decisions. These apprentices were also more likely to report their friends to have said *it's a good idea* to take up an apprenticeship than were apprentices who had no friends in or considering entering an apprenticeship (72.1% and 57.9%, respectively); 25.4% of apprentices indicated that friends had mostly said *it's up to you*. A small group (4.1%) reported a variety of other comments, most commonly that friends were non-committal (that is, they said *nothing, did not care, [it is] … your business)*. Friends had also commented: *once you have it [the trade] you will have it for life, you can bake me fresh bread every day* (friend of apprentice baker), and *good on ya.* Others warned apprentices that the pay was too low. Still others had advised apprentices to stay in education (for example, they said *you are stupid, finish Year 12*, *stay in school*, and *uni is the way to go)*. Few apprentices reported that friends had told them *it's not a good idea*. One apprentice (a mature-age apprentice) reported that his partner had said *it will cost you.*

The great majority of school students (60.6%) believed that their friends and classmates would not care *one way or the other* if they decided to take up a four-year trade apprenticeship. There were 26.4% who indicated that friends and classmates would say *it's a good idea,* and a small group (6.7%) who believed their friends and classmates would say that *it's not a good idea.*

Students whose friends and relatives were already in four-year apprenticeships or considering going into apprenticeships were more likely to say that their friends and classmates would support their decision to enter an apprenticeship (that is, they would say *it was a good idea)* than those who had no friends or relatives in apprenticeships or considering taking up apprenticeships (31.5% and 21.3%,

respectively). However, those with no friends or relatives in apprenticeships were more likely to say that friends and classmates would *not care one way or the other* than those who had friends or relatives in or considering taking up apprenticeships (68.9% and 60.3%, respectively).

Focus group students with family, friends or relatives who had been or were currently in apprenticeships also knew more about apprenticeships and were more open to the idea.

Little impact of peer views on students

The views of their peers do not appear to have any major influence on student decisions about whether or not to enter an apprenticeship: 66.3% of students responded that the views of these peers would affect their decisions *to little or no extent*; while 28.1% thought their decisions would be affected to *some extent* and 5.5% reported that peer views would affect decisions *to a great extent*.

Teachers generally reticent

Students were asked whether any of their teachers (including school counsellors) had suggested to them that it would be a good idea to go into a four-year apprenticeship. Nearly 50% (49.8%) of responding students indicated that they had *never discussed it with them*; 18.9% reported that their teachers (including counsellors) had made this suggestion, and 25.3% reported that teachers had said that *it was not a good idea*. This pattern was generally similar across the year levels. However, Year 10 students were the most likely to say that their teachers had never discussed it with them and students in Year 11, the least likely to do so. A slightly greater proportion of Year 11s indicated that teachers had said *it was a good idea*.

Almost two-thirds of those students reporting supportive teachers indicated that these suggestions had been made to them by just *a few* teachers. This was the most common response. About a fifth reported that *many* teachers had made these suggestions, and a tenth reported that *all or nearly all teachers* had suggested it to them. Once again Year 11 students were far more likely to say that *many* teachers had suggested it to them than were students in Year 10 or 12.

Students in focus groups (especially Year 12 students) also reported that teachers rarely spoke to them about apprenticeships and were most concerned with students' university preparation. Teachers were also reported to encourage high-achieving students to do the *suicide 5 subjects [that is] … maths 1 and 2, physics, chemistry and English*. When students wanted to find out about vocational programs, they generally went to teachers with specific responsibility for vocational studies, including apprenticeships. *There will be the construction or tech teacher that encourages students [to pursue an apprenticeship] but most of the time it's about getting good grades and getting into uni*.

A better idea for those of lower academic ability

Teachers (including counsellors) were most likely to suggest that it was *a good idea* for students to pursue an apprenticeship if students had self-projected TER scores of 70 or below, or reported that in their current studies they were performing *not so very well at all*. They were least likely to suggest apprenticeships to those with higher self-projected TER scores, or those reporting themselves to be performing at a *high* or *very high* level in their current studies. However, across all reported ability groups bar the lowest group, over half of the students reported that they had not discussed pursuing an apprenticeship with teachers or counsellors (table 8). This includes those who perceived themselves to be doing okay. Nevertheless, almost 40% of students who perceived themselves to be working *not so well* or *not so very well at all* had also not discussed this possibility with teachers. Focus group students in Year 12 also noted the lack of substantial promotion of apprenticeships in schools by teachers.

Table 8 Teacher suggestions to students about entering apprenticeships by student perceived ability levels

	Performing at very high level	Performing at high level	Performing at an okay level	Performing not so well or not so well at all
	%	%	%	%
Yes, it's a good idea	14.1	12.9	21.1	29.9
No, it is not a good idea	26.3	29.3	24.5	22.4
Never discussed it with them	57.6	53.2	50.1	36.7
Not reported	2.0	4.7	4.4	10.9
Total	**100.0**	**100.0**	**100.0**	**100.0**
Total no. of students	**99**	**451**	**841**	**147**

Note: 1.5% of students did not indicate their current performance levels.
Source: Student survey

Student perceptions of why teachers do not suggest that they pursue an apprenticeship

Students who indicated that none of their teachers (including counsellors) had spoken to them about apprenticeships, and those who had never discussed apprenticeships with teachers, were asked for their opinions on why teachers behaved in this way. Students recorded a wide variety of opinions (table 9). The most frequently reported reason (reported by just over a third of these students) was that students' future goals did not include an apprenticeship. Presumably teachers had been aware of this and had not broached the subject with them. However, just over a quarter did not know or were not sure why teachers had not broached the subject with them. A slightly smaller proportion reported that teachers had not suggested it to them because they themselves had never asked teachers to discuss the issue. There was also a substantial group of students (about a tenth) who reported that they rarely spoke to teachers about this, nor did they want or need to talk to them. Students also reported that teachers and counsellors had not broached the subject with them because they were aware of students' plans for going to university and the capacity of students to enter further academic studies.

Although students in focus groups indicated that there was information in their school about vocational programs (including apprenticeships), it was clear that students needed to take the initiative in accessing the information: … *[our] school encourages apprenticeships but there's not much information about it around—you have to ask.*

Table 9 Student perceptions of why teachers had not suggested to them that it was a good idea to enter an apprenticeship

	% of respondents	% of all responses
They know I have other plans	35.3	31.0
Not sure	27.9	24.5
Have never asked them	26.3	23.1
Don't talk to teachers about this	9.5	8.3
Because they believe I am planning to and capable of going to university	4.9	4.3
Because they have higher expectations for me (including finishing school and going to university)	4.1	3.6
Teachers may not have the information or interest to speak about apprenticeships	3.3	2.9
They know I am not suited to those jobs	1.5	1.3
Other miscellaneous reasons	1.0	0.8
		100.0

Note: * 730 students provided one or more responses.
Source: Student survey

Learning from the experience of apprentices

Learning from the experience of apprentices has two major benefits. First it can give us some practical insights about the behaviour and work lives of apprentices, and secondly it can help us to understand the types of things that need to be done to improve the appeal of apprenticeships to a wider pool of students. We have found that, although apprentices are generally satisfied with their choice of career, they continue to have concerns about remuneration and working conditions.

Finding a job

The most common method for obtaining an apprenticeship (reported by just over 40% of respondents) was to respond to a job advertisement or offer from an employer or to make a direct approach to an employer (including a group training organisation).[12] Just over a quarter of respondents reported that they had obtained their apprenticeship as a result of having undertaken some formal work experience or preliminary training.[13]

High levels of job satisfaction

About three-quarters of apprentices gave a positive evaluation of their employment experience by indicating that they would recommend an apprenticeship in their trade to any friends or relatives who were in the process of deciding what to do (see appendix B, table B1.24). Males were far more likely to do so than females (76.8% and 64.7%, respectively). About a quarter of females and 15% of males would not recommend an apprenticeship in their trade to friends and relatives. A small group of apprentices indicated that they would recommend the pathway to some and not to others, depending on the person's ability or motivations. The majority of those who would recommend an apprenticeship in their trade to others would do so for reasons related to employment, financial, educational, personal and career establishment and progression benefits (see appendix B, table B1.25).

Another indicator of apprentice satisfaction is the extent to which they would like to remain in the trade. Close to 90% of respondents intended to continue working in the trade once they had completed their apprenticeships (see appendix B, tables B1.26 and B1.27), including undertaking more studies. Just a very small group would get a job in *a non-related area* or move into full-time education and training.

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[12] One apprentice reported that he had obtained an apprenticeship after having made as many as 17 applications. Another had obtained his apprenticeship by 'asking around work places and through friends'. He claimed that it took almost 18 months.

[13] Half of these respondents had undertaken work experience or work placements with the employer. Just under a half had undertaken a TAFE pre-vocational pathway or pre-apprenticeship pathway. The remainder had been involved in a VET in Schools program, programs with non-TAFE providers, or the Community Development Employment Programs scheme. Personal contacts (including family and relatives), previous experience with employers (usually previous employment) and accessing employment-focused agencies (including Centrelink, industry associations and internet-based services) were also reported as ways apprentices had gained their jobs. However, these were far less frequently reported than the first two groups of responses (appendix B, table B1.30).

However, we cannot ignore the fact that we have concentrated our efforts on gaining the views of apprentices who have commenced and continued with their training contract. We have not gathered information from apprentices who may have exited training contracts because of low job satisfaction. When Curtain and Cully (2001) did a study of those who had left apprenticeships, they found that the working relationships with the boss of many non-completers were unsatisfactory. In suggesting strategies that might help to attract more people to apprenticeships, a small group (about 5%) in our study spoke of the need to improve the support and treatment apprentices receive at work; this includes having friendly and supportive bosses (see table 10).

Table 10 Apprentice suggestions for strategies required to attract more apprentices to trades

Suggested actions	% of apprentices	% of all responses
Increase pay (especially in first and second years, later years and qualified tradespersons)	77.5	65.1
Increase information on and promotion of benefits of apprenticeships and specific trades (via high schools and media)	30.1	25.2
Improve training (more and better training, 2 apprentices on site at a time, more practical on-the-job training for apprentices and school students, increased task variety for apprentices, provision of TAFE apprenticeship training locally)	23.0	19.3
Increase financial assistance and incentives for apprentices (more subsidies, payment by instalments, reduction of training costs, increased allowances for training equipment or materials, provision of tools, cash incentives for good performance, fuel money, travel assistance, make it easier to get licence at end)	19.9	16.7
Improve working conditions (including better and fewer hours, less overtime, different and flexible schedules, adequate and clean uniforms, occupational health and safety, better equipment and clothing, women-friendly environment, adequate weather policies)	17.5	14.7
Shorten apprenticeship duration	10.7	6.0
Encourage employers to create more jobs for apprentices of all ages (including reducing red tape)	7.2	8.8
Improve support, treatment and respect for apprentices (including better screening and monitoring bosses for suitability, more friendly and supportive bosses and staff, more job options on completion, assistance in finding jobs and starting businesses)	5.7	4.7
Miscellaneous suggestions (including improve image of trade, licence the trade, focus motivation of apprentices on apprenticeship rather than other pastimes, remove profiling of students, limit apprenticeships to maintain value, not much or nothing required)	4.0	3.4
Unsure	1.6	1.3
		100.0

Note: Apprentices could provide multiple responses. A total of 755 apprentices provided one or more responses.
Source: Apprentice survey

Continuous and stable employment benefits

The most frequently identified group of reasons for making a positive recommendation (reported by just over 40% of apprentices) dealt with the availability of continuous and secure employment. A trade would always be there to *fall back on*, would enable individuals *to pull up anywhere and find a job*, and provide them with stability in life in general. An apprenticeship would give school leavers independence because it would give them paid employment straight away, and *4 years of steady work*. It also made good sense because trades in certain areas were especially in demand (for example, housing).

Short- and long-term financial, educational and personal benefits

Almost a third of apprentices recommending an apprenticeship to others spoke about the short- and long-term extrinsic rewards that a trade offered, either during or on completion of the apprenticeship. This included financial, educational and personal benefits. Short-term benefits

included apprentices being able to receive pay while still learning, save money, get a qualification and trade papers, and acquire practical experience. In the long-term the trade would provide them with a good future and opportunities for making *good money*. Apprenticeships were also perceived to be easier to get into and complete and to provide a *decent job*, should people not do well academically in school or not get into university.

Career establishment and progression benefits

Almost a fifth of apprentices recommending an apprenticeship to others did so because they believed it helped individuals establish careers and, on completion, could lead to other careers. An apprenticeship enabled individuals to *get a trade behind [them]*, use this as *a stepping stone* to other careers or further training, and *develop a work history for resumes*.

Satisfying, challenging and useful work

Almost a quarter of apprentices who would recommend an apprenticeship to others did so because of the intrinsic rewards associated with the trade. They believed that the work was satisfying, interesting, challenging and fun. It provided many opportunities for working with different types of equipment and for learning new things. Individuals referred to the good working conditions, including the hours and the opportunity for outdoor work. In some trades (especially hospitality and hairdressing) apprenticeships provided opportunities to continually meet new people. Individuals spoke about the opportunities apprenticeships gave for school leavers to *stay off the dole*, *be creative* (hairdressing), *and help the community*. Hospitality apprentices spoke about opportunities to *travel to different parts of the world* and to *learn about different cultures*.

Valuable knowledge skills and experience

A small percentage of apprentices would recommend apprenticeships to others because of the opportunities an apprenticeship offered for developing valuable and useful practical skills, knowledge and experience. Individuals referred to the benefits of acquiring specific occupational skills and knowledge. Mechanics spoke about skills required to fix their own cars and carpenters spoke about the opportunity to learn the skills required to build their own houses.

Miscellaneous benefits and advice

There were those who advised apprentices to do an apprenticeship *at an early age* and only to undertake an apprenticeship at an older age if their situation was *financially viable*. Apprentices advised others to be *prepared for things that come with the job*, and to only enter an apprenticeship once they had worked out if *that is really what they want to do.*

Common concerns

One in six (16.4%) apprentices indicated they would not recommend an apprenticeship to friends and relatives. Financial concerns dominated the reasons for not making a positive recommendation (see appendix B, table B1.28).

Low pay and poor working conditions

The key reason for not recommending an apprenticeship to friends and relatives considering possible career pathways referred to financial issues, including, *more money available in other jobs*. This was cited by 50% of apprentices. The *other* key reasons given for not recommending an apprenticeship also most often referred to low pay, that is, wages being too low generally or too low for the amount of work performed, and pay not reflecting the levels of skill and knowledge required. Issues related to working conditions, working hours, and interpersonal difficulties with supervisors (cited by about a fifth of apprentices) were the second most common concerns. However, no apprentices were

concerned with *early start times*. A few mature-age apprentices referred to the wisdom of starting apprenticeships at younger ages. If we were to look at all the reasons (and not just the key reason) apprentices gave for not recommending an apprenticeship to friends and relatives, then we find a similar pattern. Once again the most common reasons related to poor pay rates by comparison with other jobs. The next most frequently chosen reason for not recommending an apprenticeship referred to poor working conditions (including conditions and hours).

Most of the *other* reasons apprentices gave for not recommending an apprenticeship also fell into the category of pay rates and costs, the most commonly mentioned factors being that the pay did not reflect the levels of skill and knowledge acquired and that the wages were too low for the amount of work done. The nature of the work and working conditions was the next most common category with the most frequent responses focusing on the fact that the work did not match what was expected, and involved physical stress.

There was also a small group who would not recommend an apprenticeship to others because of the treatment they themselves had received at work, particularly in terms of lack of recognition and respect from employers, poor relationships with their older co-workers and lack of respect from workers in other trades.

Inadequate training

Just under a tenth of apprentices identified lack of proper training as a key reason for not recommending an apprenticeship to friends and relatives. Poor management and monitoring of employment and training arrangements were also cited. Concerns about the quality of the training and the length of the training were also mentioned. There were minimal numbers of apprentices concerned about the duration of training contracts.

Miscellaneous reasons

Apprentices would not recommend an apprenticeship to friends and relatives if they felt these individuals already had a job or were lacking the ability or attitude to do the work. Another small group replied that they would not recommend apprenticeship to people of mature age.

Increasing the attractiveness of apprenticeships

There were 755 apprentices who provided suggestions about what they believed could be done to attract more apprentices to the trades. When all multiple suggestions made by individual apprentices are combined, we find that just over three-quarters of apprentices make suggestions about pay improvements. Almost a third refer to enhancing and increasing the promotion and availability of information about trades, about a quarter refer to training improvements, a fifth suggest improvements in financial assistance and incentives for apprentices, and just under a fifth refer to improvements of working conditions. In table 10 we report the variety of different suggestions made by apprentices.

When we asked the apprentices to rank these suggestions in order of importance, they indicated that in the first instance the most important thing to do was to increase wages (including wages of first and second year apprentices, but in some cases also of apprentices in last two years of training, and those of qualified tradespersons [see appendix B, table B1.29]). The next key important action to take (identified by about 11% of apprentices) was to enhance the quality and amount of information on and promotion of the trades (especially in secondary schools). This was followed by a variety of suggestions for: improving training provision, access and delivery; increasing the financial assistance and incentives available to apprentices; improving working conditions; encouraging employers to create more jobs for apprentices (including mature-age apprentices); shortening apprenticeship durations; improving support, treatment and respect for apprentices; and applying a variety of miscellaneous strategies.

Students in focus groups also provided a variety of suggestions on how to attract students to apprenticeships. There needed to be greater promotion of the trades at school and in the media. Tradespersons and apprentices could visit schools and inform students about what it is like to work or train as a tradesperson. Lessons on how to apply for an apprenticeship would also help. Promotional campaigns should use posters and *exciting* TV advertisements similar to those recently used in army recruitment advertisements. Benefits that could be highlighted included: better and more secure job prospects; the ability to become qualified at a relatively young age; and acquisition of practical skills (like *fixing your own car*) that were transferable and useful throughout life. Slogans like *we'll take you all the way* were also suggested. Older students believed that such campaigns should target students as early as Year 9, and especially students who have as yet to make a career choice. If females were to be attracted to the male-dominated traditional trades, they require more details on how females would be treated in these areas. *We hear a lot about becoming an electrician or a plumber but even though we are told that women can work in that kind of field we don't hear much about what women can actually do in it*. Suggestions were also made for increasing pay rates for apprentices, providing increased financial assistance to employers to offer more apprenticeships (including in the country). It was also suggested that *students need practical experience to understand what they are good at*, and they should be told they *can get things in life at an earlier age*. Apprentices should also do *courses like business management so that if you want to start your own business you can*.

Conclusions

Key drivers

We have found that the key drivers of interest in apprenticeship uptake are personal attributes associated with intrinsic motivation and academic ability. Those who are most open to apprenticeships are those who have had an abiding interest in the work of the trade. Those least open to the idea of pursuing an apprenticeship are high academic achievers and those who have never been keen on a trade. Factors related to socioeconomic background have a modest impact.

It would appear that there is nothing new in most of these findings. Others have confirmed the importance of student achievement and academic ability in explaining students' success in employment. What is different about our findings is the modest role played by socioeconomic background in students' career decision-making.

Just a small percentage of students in secondary schools aspire to becoming a tradesperson in the traditional trades, the great majority of those with non-trade aspirations wanting a career in the professions. Although the career and life goals that students set for themselves are often a major driver of their education and employment experience, it is also true that many long-term aspirations are replaced by more immediate objectives, as students move through school and into further education and employment. This is especially the case when students either fail to get the necessary score to enter higher academic studies or programs of their first choice, or they reconsider options in the light of what is more immediately available to them. We have seen that considerable numbers of apprentices fall into apprenticeships after they have been unable to achieve their first choice of destination. We have also seen that, whether they enter apprenticeships as a first, second or third option, their intention to remain in the trade is high.

It is also important to look at how young people's innate ability affects how they make decisions for their futures. This study has shown that academic ability (measured by intentions to obtain a TER score and self-ratings of ability) is a factor that explains apprenticeship uptake. However, this factor only has high predictive value for those who decide not to pursue apprenticeships and then only for high achievers. We can be less confident of this as an explaining factor for other students. A plausible explanation is that high achievers are more confident of their own abilities and this may make them more definite about what they do not want to do. In addition, they believe that they are bound for higher education. Decisions for those in the lower ranges of ability may be more difficult, in that they may be more hesitant to reject pathways they may have to pursue should they be unable to enter higher education. This means that there may be some advantage for the traditional trades in promoting apprenticeships to those students who as yet have no firm ideas of what they want to do. Nevertheless, our study has also shown that having an intrinsic interest in the work of a particular occupation will also attract those from higher ability levels.

When we controlled for academic ability, there were no significant differences between metropolitan school students and their likelihood of saying *n*o to an apprenticeship. Why students in the country are less likely than their metropolitan counterparts to say *no* to an apprenticeship is not clear. One explanation is that students in the country may have to take advantage of all opportunities available in their particular town and this includes being more open to trade careers. This requires further investigation.

Motivators and disincentives

Apart from the statistically significant observations on what we can predict about career decision-making, we have also learnt from the experiences of apprentices and students and what they say has influenced them in their decisions.

In analysing what people claim are the reasons for deciding to pursue or not pursue a traditional trade apprenticeship, it is clear that an intrinsic interest in the tasks of the occupation plays a major role in decision-making. Both apprentices undertaking and students planning to pursue apprenticeships refer to having *always wanted to do that type of work*. Moreover, a trade is also the first career preference of the majority of apprentices. Conversely, an intrinsic *lack of interest* in such a pathway has been observed for students who are not interested or have not considered the idea of an apprenticeship. These students typically say *I have never been keen on a trade*. In addition, apprentices also highlight the need for people to understand whether or not they are suited to such an occupation and whether or not they have the capacity or the personality for it.

Apprentices are generally well satisfied with the pathways they have chosen and the overwhelming majority are prepared to recommend these pathways to friends and relatives for a range of employment, education and career-development benefits. Nevertheless, they are aware that knowledge of low apprentice wages and perceptions of inadequate employment and training conditions, and poor public image, as well as a lack of accurate and adequate information about apprenticeships may act as disincentives to apprenticeship uptake. Students who have decided against an apprenticeship confirm the accuracy of this perception.

A common view is that those who are less academically able should consider a trade. Certainly our study has shown that teachers tend to suggest such a pathway more often to students of lower ability (presumably because they do not consider such students have the capacity for university study). Students in the lower ranges of ability are also more likely to report being encouraged to pursue an apprenticeship by their parents.

Just a small percentage of parents actually discourage their children from pursuing an apprenticeship. The majority either support the concept or are non-committal. Whether or not they encourage, discourage or are non-committal, the great majority of students claim that the views of their parents have little or no influence on whether or not they pursue an apprenticeship.

Raising apprenticeship wages

The overwhelming majority of apprentices report dissatisfaction with low apprenticeship wages. When they suggest how we should go about improving the appeal of apprenticeships to others, higher wages is the most frequent suggestion. Apprentices have always had to endure low wages in recognition of the fact that they are less productive while they are still learning the trade.

Apprentices and students also indicated that being able to get more wages in other jobs or *on the dole* reduced motivation for apprenticeships. This anomaly has also been highlighted in industry circles. The 2003 Congress of the Australian Council of Trade Unions also noted that a major issue that needed to be resolved was the achievement of equity and parity among qualifications issued. What was required was a review of the qualifications applying to apprentices and subsequently 'linking them to the intensity of the training effort required to achieve them'. If we are to maintain apprentice numbers in skill shortage areas (especially those with few apprentice commencements), then this issue may need further investigation.

Improving the quality of information and training

Also suggested was the need to improve: the information available to students in secondary schools and the community in general on the benefits of the trades; access to apprenticeships; and the quality of apprenticeship training. The great variety in the specific items suggested by apprentices underscores the significant variability in the apprenticeship experience and the need to tailor

strategies to the needs of specific groups. Nevertheless, promotional campaigns via the media, guest speaker presentations by apprentices and tradespersons at school graduations or in classrooms, and increased work experience placements seem to make good sense.

There have been numerous suggestions for improving the quality of training to attract more apprentices. They include: improving training, offering more training in regional areas so apprentices do not have to travel so far to college, and changing the amount of TAFE training. Suggestions for improving the nature and quality of training provision will also need to take account of the particular experiences of individuals to accommodate the following, some of which are contradictions. For example, there are suggestions both for increasing and decreasing the amount of time people spend in off-the-job training, improving the quality of supervision, and making classes more accessible to regional or outer suburban areas. There are suggestions that two apprentices at a time should be in training in the workplace (that is, higher apprentice to tradesperson ratio), as well as suggestions both for decreasing and increasing the responsibility of apprentices. There are suggestions for shortening apprenticeship duration. Interestingly, when apprentices who do not recommend the same pathway to others are asked for their reasons, very few refer to the length of the apprenticeship as a disincentive.

Reviewing available financial assistance

Much attention has been paid to increasing financial incentives for employers as a way to encourage them to hire more apprentices. Although a small group of apprentices in our study also talk about the need for encouraging employers to create more apprentice jobs, one in three apprentices indicates that more attention needs to be paid to the types of incentives and assistance available to apprentices themselves.

What is unclear is why apprentices also suggest incentives that are already generally available, such as subsidies for tools and travel assistance. The tools for your trade incentives were first introduced for apprentices who had commenced apprenticeships in 26 designated trades[14] after March 2005 and expanded to include another 16 trades[15] from 26 March 2006. Travel assistance is available from state and territory governments for eligible apprentices. A possible explanation is that they are not in trade categories, locations, and stages of apprenticeship where they qualify for such assistance. A more worrying explanation is that neither employers nor apprentices have been made specifically aware of the availability of such incentives.[16] If this is the case, there may be a need for state training authorities to ensure that such information is easily available to apprentices and their employers. Suggestions for fuel money and reduction or elimination of costs associated with training also continue to underscore the financial difficulties apprentices experience making ends meet. One innovative suggestion is the provision of cash bonuses for achievement in training. Another is making the apprentice of the year awards available to each trade occupation.

Improving the conditions of work

Apprentices also talk about the need to improve the conditions of work and the work environment, but once again the variety of suggestions reflects the diverse preoccupations of different apprentices and the variability of their working conditions. Concerns have been voiced about the type of treatment meted out to apprentices by inconsiderate or difficult-to-get-on-with bosses and

[14] Trades include: metal fitter, metal machinist, toolmaker, metal fabricator, welder, sheetmetal worker, motor mechanic, auto electrician, panel beater, vehicle painter, electrician, refrigeration and air-conditioning mechanic, electrical powerline trades, electronic instrument trades, electronic equipment trades, carpenter and joiner, fibrous plasterer, bricklayer, solid plasterer, plumber, chef, cook, pastry cook, cabinetmaker, hairdresser, furniture upholsterer

[15] Pressure welder, vehicle body maker, lift mechanic, carpenter, joiner, roof slater and tiler, wall and floor tiler, stonemason, floor finisher, gasfitter, drainer, roof plumber, mechanical services and air-conditioning plumber, baker, boat builder and repairer, and flat glass tradesperson (commenced before 20 September 2006).

[16] The survey did not ask about tool incentives. However, apprentices spoke about improving or introducing these in their suggestions for attracting apprentices to the trades.

work colleagues and, although such concerns are only highlighted by a small proportion of apprentices, safeguards need to be in place to guarantee the quality of the apprenticeship experience. High-quality screening of employers and work facilities and equipment by relevant government agencies prior to approving apprenticeship training contracts needs to be constantly and consistently applied.

Implications

We need to understand that a trade may not suit everyone, especially those who have their hearts set on other careers and for whom the idea of a trade is not attractive. It is also important to note that those who are in the highest ranges of academic ability (with few exceptions) are most likely to aspire to other careers (generally those requiring university qualifications). To maximise their effectiveness, major apprenticeship recruitment drives should concentrate on students who are outside these groups. There are also likely to be substantial numbers of students (across ability ranges and grade levels) who have not given the idea much thought and who might be encouraged to think of a trade apprenticeship as an option. Bearing this in mind, it is important to ensure that adequate information about the benefits of a trade is made available to all students (and their parents). In addition, schools should consider reviewing their career development activities to ensure that students have access to better and more relevant career guidance and development advice which is customised to their individual needs. There may also be room to appeal to individuals bound for university to consider an apprenticeship, should their other preferences not eventuate. It would also make sense to advise them that completing the basic apprenticeship trade qualification may not preclude them from moving into other higher-level VET or degree qualifications at a later date. In view of the fact that about 90% of apprentices in our survey are planning to stay in the trade, such a strategy could be beneficial for individuals and for industry.

Concerns about the rates of pay for apprentices (and trades in general) are an indication of financial issues associated with apprenticeships, both perceived and actual, and are considered to act as a disincentive for would-be apprentices. Although the recently implemented Youth Allowance incentives may not provide much more money for those apprentices living at home with parents, they may help those who live away from home. Nevertheless, a review of the adequacy of apprentice wages would be valuable.

The great majority of apprentices are well satisfied with their choice of apprenticeship as a career. Consideration might be given to tapping into this group as a positive and credible promotional resource by inviting satisfied apprentices to visit their former schools and talk to students in career information sessions. Benefits that need to be highlighted include: the opportunities apprenticeships give for career establishment and progression, interesting and satisfying work tasks, continuous and secure employment, and financial, educational, and personal benefits.

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Appendix A: Methodology

Aims of the study

The study aimed to explain why individuals decide or decide not to take up apprenticeships in the traditional trades. It was felt that the first part of this question could be answered in part by collecting information from those who have either made the decision to enter traditional apprenticeships (or are positively disposed to the possibility) and those who are currently employed in or have just completed apprenticeships. The second part of this question could be answered by secondary school students (in Years 10, 11 and 12) across the spectrum of ability levels and year levels.

The questionnaire survey of apprentices provided us with the major factors felt to have encouraged individuals to enter apprenticeships. A questionnaire survey and focus group discussions with secondary school students identified the influences on career decisions of students across the range of ability levels. This information was used to help us determine the types of influences that might positively affect students who do not come from the top academic stream (who are always going to opt for university courses) to consider apprenticeship uptake.

Processes

Information from students was collected via questionnaire surveys (administered by teachers in home groups) and via focus groups held at the school but led by the researchers. Information from apprentices was collected by way of a direct mailout questionnaire.

Student surveys and focus groups

Permission to use students at selected schools in South Australia in the survey was granted by the Department of Education and Children's Services on completion of an in-depth research application form (available online from the Department of Education and Children's Services website) which detailed the:

- ✧ aims of the study
- ✧ methodology to be used for collecting the information
- ✧ the names of principal and assistant researchers
- ✧ contents of the questionnaires and discussion group questions to be used in the study
- ✧ answers to possible questions from parents
- ✧ arrangements for safe-guarding confidentiality requirements.

Prior to lodging the application with the Department of Education and Children's Services the researchers had the student questionnaire survey examined by an officer from the department with responsibility for VET in Schools programs. This officer was also asked to provide feedback on the contents of the questionnaire.

Once permission had been granted, researchers were required to get principals to agree to have their schools participate. Only one principal declined to be part of the study. As a result, this school was not included in the study and the principal of another school in a similar area was approached. When principals agreed to take part in the study, researchers visited them (or their designated

representative) to discuss how best to have the written questionnaire and focus groups administered. It was generally agreed that teachers would be asked to administer the survey questionnaire to students in their home groups. In this way all Years 10, 11 and 12 students would have an opportunity to participate and there would be no duplication.

As agreed with principals (or their representatives), researchers assembled a package of materials for each Year 10, 11 and 12 class in the school and had these delivered to the school. This package of materials included questionnaires, information for parents and envelopes in which students could seal their completed questionnaire. Teachers were then asked to administer the questionnaires to their classes and to collect the completed questionnaires from students during class time. These were then placed in a larger envelope which in turn was handed in to the front office for collection by researchers.

This personal attention by researchers aimed to increase the commitment of schools to doing their best to help administer the survey, so increasing the number of completed questionnaires.

Students who were to take part in focus groups were also identified at the school level. The research team also provided pizzas for students to encourage participation. As a result there were 78 students from four schools who participated in the focus groups. Only one school was not able to set up a discussion group because of time limitations.

Apprentice survey

Permission to access details on apprentices from the Apprenticeship and Traineeship Services Branch was sought from and provided by the Chief Executive Officer of the Department of Further Education, Employment, Science and Technology.

Feedback on the contents of the apprentice survey was sought from officers from the Apprenticeship and Traineeship Services Branch of the Department of Further Education, Employment, Science and Technology.

Researchers used a stratified random sample of apprentices to ensure that there was a broad coverage of trades in the study.

Response rates from different trade categories

Trades were allocated groups using the Australian Standard Classification of Occupations and the three-digit level of classification. Plumbers are treated as a separate group from construction tradespersons, and hairdressers are treated separately from 'other tradespersons'. This is because these occupations were thought to be adequately large enough to permit a separate analysis. More information on the way trade skill levels were combined is included in appendix D.

Table A1.1 Trade group categories used in apprentice survey

	Major group	ASC0 ID	No. received	Response rate
1	Mechanical engineering tradespersons	411	72	36%
2	Fabrication engineering tradespersons	412	39	21%
3	Automotive tradespersons	421	159	33%
4	Electrical and electronics tradespersons	431	145	31%
5	Structural and final finishes construction tradespersons	441–442	141	34%
6	Plumbers	443	48	27%
7	Food tradespersons	451	71	24%
8	Hairdressers	493	68	32%
9	Other tradespersons	461, 462, 491, 492, 494, 498	93	31%
	Grand total		**837**	**31%**

Appendix B: Tables

Table B1.1 Apprentices by age group

	Female		Male		Not reported		All apprentices	
	No.	%	No.	%	No.	%	No.	%
15–19	53	45.7	262	36.4	0	0.0	315	37.7
20–25	54	46.5	355	49.4	2	100.0	411	49.0
26–30	3	2.6	36	5.0	0	0.0	39	4.7
31–35	2	1.7	21	2.9	0	0.0	23	2.8
36–40	3	2.6	22	3.0	0	0.0	25	3.0
41–45	0	0.0	9	1.3	0	0.0	9	1.1
46 and over	1	0.9	9	1.3	0	0.0	10	1.2
Not reported	0	0.0	5	0.7	0	0.0	5	0.6
All apprentices	**116**	**100.0**	**719**	**100.0**	**2**	**100.0**	**837**	**100.0**

Source: Apprentice survey

Table B1.2 Apprentices by gender and year level of apprenticeship

Year level	Female		Male		No reported		All apprentices	
	No.	%	No.	%	No.	%	No.	%
First year apprentice	23	19.8	87	12.2	0	0.0	110	13.3
Second year apprentice	42	36.2	227	31.7	0	0.0	269	32.1
Third year apprentice	31	26.7	194	27.0	0	0.0	225	26.9
Fourth year apprentice	11	8.5	137	19.0	2	100.0	150	17.9
Completed apprenticeship	8	6.9	64	8.7	0	0.0	72	8.6
Not reported	1	0.9	10	1.4	0	0.0	11	1.3
Total	**116**	**100**	**719**	**100.0**	**2**	**100.0**	**837**	**100.0**

Source: Apprentice survey

Table B1.3 Students by current year level and gender

	Year 10	Year 11	Year 12	Total
Female	324	253	203	780
Male	324	241	156	721
Not reported	28	21	12	61
Total	**676**	**515**	**371**	**1562**

Source: Student survey

Table B1.4 Main reasons for choosing an apprenticeship for students* and apprentices

	Students		All apprentices	
	No.	%	No.	%
I always wanted to do that type of work	209	22.8	202	24.1
With a trade I can always get a job	103	11.2	171	20.4
A trade is a good base for other careers	116	12.6	55	6.6
An apprenticeship is already available to me	7	0.8	55	6.6
Doing a prevocational course	n/a	n/a	21	2.5
With a trade I can start my own business	101	11.0	48	5.7
With a trade I can make good money	158	17.2	34	4.1
Already employed in that sort of work	n/a	n/a	33	3.9
Doing work experience in that area	n/a	n/a	49	5.9
To join the family business	25	2.7	19	2.3
My parents or relatives have done an apprenticeship	10	1.1	7	0.8
The working hours suit me/are okay	44	4.8	1	0.1
Other	59	6.4	140	16.7
Not reported	730	9.3	2	0.2
Sub-total	832	90.7	0	0.0
Total respondents	**1562**	**100.0**	**837**	**100.0**

Note: * The question asked students to indicate the 'reasons which might lead them to take up a traditional trade apprenticeship'. Although all students were given the opportunity to indicate the reasons, 80% of students who did not respond to the question were those who had already indicated that they were not planning or had not thought about the possibility of pursuing an apprenticeship.
Student percentages are calculated on the number of known responses.

Source: Student survey, apprentice survey

Table B1.5 Key reasons for not intending to take up apprenticeships

	Apprentices		Students with no plans to pursue apprenticeship*	
	No.	% of responses	No.	% of responses
Inadequate pay (for apprentices and tradespersons)	464	55.4	68	9.0
Lack of information and promotion of trades and future benefits	75	9.0	112	14.8
Length of training required	63	7.5	0	0.0
Poor and unsuitable working conditions	60	7.2	64	8.5
Poor image of the trade (status not high enough)	8	1.0	13	1.7
Never been keen on a trade	n/a	n/a	380	50.0
Miscellaneous concerns**	89	10.6	119	15.7
	837	100.0	756	100.0

Notes: * These responses were provided by the students who had indicated they had no plans to enter an apprenticeship or had not thought about the possibility of entering an apprenticeship.
** Individuals and small groups of individuals gave a variety of different reasons. These have been included in the discussion.

Source: Apprentice survey, student survey

Table B1.6 Apprentices by sex and highest level of schooling

	Female		Male		Not reported		All apprentices	
	No.	%	No.	%	No.	%	No.	%
Year 12	53	45.7	284	39.5	0	0.0	337	40.3
Year 11	35	30.2	286	39.8	1	50.0	322	38.5
Year 10	21	18.1	120	16.7	0	0.0	141	16.8
Year 9 or below	4	3.4	23	3.2	0	0.0	27	3.2
Not reported	3	2.6	6	0.8	1	50.0	10	1.2
Total	**116**	**100.0**	**719**	**100.0**	**2**	**100.0**	**837**	**100.0**

Source: Apprentice survey

Table B1.7 Commencements 12 months ending September 1996 to 2005 for traditional apprentices by highest level of schooling, for Australia and South Australia

	Year 12	Year 11	Year 10	Year 9 or lower	Did not go to school	Unknown	Total
Australia							
1996	38.8	19.0	34.8	5.0	0.0	2.4	**100.0**
1997	39.6	19.2	34.7	5.0	0.0	1.5	**100.0**
1998	39.2	20.0	33.8	5.6	0.0	1.4	**100.0**
1999	39.0	20.2	33.6	6.1	0.0	1.0	**100.0**
2000	37.9	19.8	34.6	6.9	0.0	0.8	**100.0**
2001	38.1	19.8	34.6	6.9	0.0	0.6	**100.0**
2002	39.1	19.3	34.2	6.4	0.0	1.1	**100.0**
2003	40.9	19.2	33.3	5.8	0.0	0.9	**100.0**
2004	42.1	18.6	32.7	5.8	0.0	0.8	**100.0**
2005	42.8	18.3	32.5	5.6	0.0	0.8	**100.0**
South Australia							
1996	32.7	28.3	12.6	3.2	0.0	23.3	**100.0**
1997	34.2	31.8	16.5	2.6	0.0	14.8	**100.0**
1998	33.6	33.1	18.0	3.0	0.0	12.3	**100.0**
1999	31.8	37.7	20.8	4.8	0.0	4.9	**100.0**
2000	33.2	35.0	22.2	5.8	0.0	3.8	**100.0**
2001	32.0	36.4	24.2	5.7	0.0	1.6	**100.0**
2002	31.8	37.2	24.5	5.6	0.0	0.9	**100.0**
2003	32.0	37.1	24.1	6.4	0.0	0.4	**100.0**
2004	34.5	36.1	23.4	5.2	0.0	0.8	**100.0**
2005	35.2	35.8	23.0	5.2	0.0	0.8	**100.0**

Source: National Apprentice and Trainee Collection (based on September 2005 estimates)

Table B1.8 Preference for apprenticeships, by highest level of schooling for apprentices

	Not reported	Year 12		Year 11		Year 10		Year 9 or below	
		No.	%	No.	%	No.	%	No.	%
First preference	7	191	56.7	237	73.6	103	73.1	18	66.7
Second preference	1	86	25.5	53	16.5	19	13.5	4	14.8
Third preference	2	52	15.4	26	8.1	15	10.6	5	18.5
Not reported		8	2.4	6	1.9	4	2.8	0	0.0
Total	**10**	**337**	**100.0**	**322**	**100.0**	**141**	**100.0**	**27**	**100.0**

Source: Apprentice survey

Table B1.9 Students by current year level and year intending to leave school

	Year 10		Year 11		Year 12	
	No.	%	No.	%	No.	%
Intending to leave in Year 10	30	4.5	n/a	n/a	n/a	n/a
Intending to leave in Year 11	81	12.1	45	8.9	n/a	n/a
Intending to leave in Year 12	551	81.4	465	90.3	367	98.9
Unknown*	14	2.1	4	0.8	4	1.1
Total	**676**	**100.0**	**515**	**100.0**	**371**	**100.0**

Note: * A few students provided a response which made no sense (that is, they said they intended to leave school at the previous year level to the year level they said they were currently enrolled). We have included these under unknown.

Source: Student survey

Table B1.10 Apprentice self-ratings of academic ability*

Self-ratings	No. of apprentices	% of apprentices
Well above average	33	5.3
Above average	221	35.4
Average	335	53.6
Below average	26	4.2
Well below average	1	0.2
Not reported	9	1.4
Total	**625**	**100.0**

Note: * This refers to only those apprentices who said they did not obtain a TER score, as apprentices who reported an achieved TER score were not required to not provide self-ratings of ability information.

Source: Apprentice survey

Table B1.11 Student plans for entering a traditional trade apprenticeship according to intentions to take TER score

Plans for entering a traditional trade apprenticeship	Planning to take TER score		Not planning to take TER score	
	No.	%	No.	%
No	693	64.4	115	24.5
Maybe	167	15.5	105	22.3
Yes	54	5.0	179	38.1
Have not thought of the idea	143	13.3	63	13.4
Not reported	18	1.7	8	1.7
Total	**1075**	**100.0**	**470**	**100.0**

Source: Student survey

Table B1.12 Anticipated TER scores of Years 10, 11 and 12 students

Range or TER scores	Year 10		Year 11		Year 12	
	No.	%	No.	%	No.	%
50 or below	4	0.9	4	1.1	5	1.9
51 to 60	5	1.1	7	1.9	17	6.3
61 to 70	22	5.0	31	8.6	62	23.1
71 to 80	94	21.2	98	27.3	80	29.9
81 to 90	166	37.5	120	33.4	69	25.7
91 to 95	75	16.9	56	15.6	28	10.4
96 to 100	62	14.0	31	8.6	11	4.1
Not reported	15	3.4	12	3.3	1	0.4
Total	**443**	**100.0**	**359**	**100.0**	**273**	**100.0**

Source: Student survey

Table B1.13 Student plans to pursue an apprenticeship by projected TER scores

TER score	Yes	Maybe	No	Have not thought about entering an apprenticeship	Not reported	Total respondents	
	%	%	%	%	%	**No.**	**%**
Not planning on a TER score	38.1	22.3	24.5	13.4	1.7	**470**	**100.0**
70 and below	12.7	19.7	51.0	15.3	1.3	**157**	**100.0**
71 to 80	5.5	12.9	64.0	15.4	2.2	**272**	**100.0**
80 to 100	2.8	15.9	68.8	11.5	1.1	**618**	**100.0**
Not reported	7.1	10.7	50.0	21.4	10.7	**45**	**100.0**
Total no.						**1562**	

Source: Student survey

Table B1.14 Parental attitudes to children entering apprenticeships by expected TER score ranges of students

	Encouraged		Did not encourage		Did not encourage or discourage		Not reported		Total	
	No.	%	No.	%	No.	%	No.	%	**No.**	**%**
No TER plans	150	62.5	12	5.0	76	31.7	2	0.8	**240**	**100.0**
Plans for a TER	67	29.8	38	16.9	118	52.4	2	0.9	**225**	**100.0**
70 and below	18	39.1	8	17.4	20	43.5	0	0.0	**46**	**100.0**
71 to 80	18	24.3	16	21.6	38	51.4	2	2.7	**74**	**100.0**
81 to 100	28	28.9	13	13.4	56	57.7	0	0.0	**97**	**100.0**
Unknown	3	37.5	1	12.5	4	50	0	0.0	**8**	**100.0**
Not reported	2	50	1	25	1	25	0	0.0	**4**	**100.0**
Grand total	**219**	**46.7**	**51**	**10.9**	**195**	**41.6**	**4**	**0.9**	**469**	**100.0**

Source: Student survey

Table B1.15 Student perceived ability levels by intentions to pursue an apprenticeship

Ability level	Yes	No	Maybe	Have not thought about it	Total
	%	%	%	%	**%**
Currently performing at a very high or high level	6.8	66.4	16.2	10.7	**100.0**
Currently performing okay	18.2	47.8	18.1	15.8	**100.0**
Currently performing not so well or not so well at all	30.8	35.0	23.8	10.5	**100.0**

Note: 47 students did not provide details that could be analysed for this table.

Source: Student survey

Table B1.16 Student perceived ability levels by intentions to pursue an apprenticeship[1]

Ability level	Students			
	All Year 10, 11, and 12 students		Would consider apprenticeship? Yes or maybe	
	No.	*%*	*No.*	*%*
Currently performing at very high level	99	6.3	21	4.1
Currently performing at high level	451	28.9	104	20.3
Currently performing OK	841	53.8	301	58.8
Currently performing not so well	112	7.2	60	11.7
Currently performing not very well at all	95	2.2	18	3.5
Unknown[2]	24	1.5	8	1.6
Total	**1562**	**100.0**	**512**	**100.0**

Note: 1 We combine *yes* and *maybe* responses to get a broader indication of openness to the idea of an apprenticeship.
2 Unknown includes four students who did not provide their year level details.

Source: Student survey

Table B1.17 Educational background of mothers and fathers of apprentices (%)

Educational background	Mothers	Fathers
University or higher	12.3	7.9
TAFE/VET diploma or advanced diploma	13.5	9.6
Trade certificate	5.3	35.5
Year 12	17.7	9.2
Year 11	23.4	8.7
Year 10 or equivalent and below (including never attended school)	20.8	22.2
Don't know	4.1	3.9
Not reported	3.0	3.0
Total	**100.0**	**100.0**

Source: Apprentice survey

Table B1.18 Student intentions to pursue an apprenticeship by father's highest level of education

Father's highest education level	Not reported	Have not thought about it	No	Maybe	Yes	Total
	%	%	%	%	%	**%**
University degree	0.8	12.8	65.9	15.4	5.2	**100.0**
TAFE/VET diploma or advanced diploma	0.9	12.8	49.6	22.2	14.5	**100.0**
Trade certificate	2.2	11.5	49.9	15.6	20.9	**100.0**
Year 12 or equivalent	2.5	12.7	55.6	15.6	13.7	**100.0**
Year 11 or equivalent	0.0	10.8	44.1	20.7	24.3	**100.0**
Year 10 or equivalent or below (including never attended school)	1.7	17.2	39.7	18.9	22.4	**100.0**
Don't know	0.0	27.7	33.3	16.7	22.2	**100.0**
Not reported	4.4	17.2	44.4	22.2	11.7	**100.0**

Source: Student survey

Table B1.19 Student intentions to enter an apprenticeship by mother's highest level of education

Mother's highest education level	Not reported	Have not thought about it	No	Maybe	Yes	Total
	%	%	%	%	%	**%**
University degree or higher	1.5	10.8	63.6	14.9	9.2	**100.0**
TAFE/VET diploma or advanced diploma	1.2	12.7	54.8	14.6	16.6	**100.0**
Trade certificate	1.4	14.1	46.2	20.7	17.4	**100.0**
Year 12 or equivalent	1.0	13.5	56.2	16.8	12.5	**100.0**
Year 11 or equivalent	2.7	10.8	48.6	16.2	21.6	**100.0**
Year 10 or equivalent and below (including never attended school)	1.6	19.5	48.9	8.4	21.6	**100.0**
Don't know	0.0	33.3	33.3	11.1	22.2	**100.0**
Not reported	4.0%	15.4	41.7	23.4	15.4	**100.0**

Source: Student survey

Table B1.20 Occupations of parents of apprentices by occupational groupings

	Mothers		**Fathers**	
Occupational grouping	No.	%	No.	%
Managers and administrators	49	5.9	90	10.8
Professionals	146	17.4	78	9.3
Technicians and associate professionals	99	11.8	82	9.8
Tradesperson and related workers	31	3.7	319	38.2
Advanced clerical, sales and service workers	52	6.2	1	0.1
Intermediate clerical, sales and service workers	160	19.1	31	3.7
Intermediate production and transport workers	12	1.4	82	9.8
Elementary clerical, sales and service workers	53	6.3	15	1.8
Labourers and related workers	61	7.3	75	9.0
Other*	102	12.2	17	2.0
Not reported	72	8.6	47	5.6
Total	**837**	**100.0**	**837**	**100.0**

Note: * Includes mothers who are housewives

Source: Apprentice survey

Table B1.21 Occupational backgrounds of parents of students by ASCO occupational groupings

	Mothers		Fathers	
Occupational grouping	No.	%	No.	%
Managers and administrators	16	1.0	164	10.5
Professionals	355	22.7	274	17.5
Technicians and associate professionals	118	7.6	181	11.6
Tradesperson and related workers	48	3.1	259	16.6
Advanced clerical, sales and service workers	50	3.2	7	0.4
Intermediate clerical, sales and service workers	261	16.7	103	6.6
Intermediate production and transport workers	12	0.8	95	6.1
Elementary clerical, sales and service workers	89	5.7	23	1.5
Labourers and related workers	113	7.2	130	8.3
Other*	157	10.1	29	1.9
Unemployed	15	1.0	19	1.2
Not reported	328	21.0	278	17.8
Total	**1562**	**100.0**	**1562**	**100.0**

Note: * Includes mothers who are housewives

Source: Student survey

Table B1.22 Student intentions to enter apprenticeships by father's occupation

Father's occupation	Yes		Maybe		No		Have not thought about it		Not reported		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
Managers and administrators	17	10.4	33	20.1	98	59.8	14	8.5	2	1.2	164	100.0
Professionals	11	4.0	37	13.5	192	70.1	31	11.3	3	1.1	274	100.0
Technicians and associate professionals	19	10.5	30	16.6	102	56.4	26	14.4	4	2.2	181	100.0
Tradespersons and related workers	57	22.0	43	16.6	128	49.4	24	9.3	7	2.7	259	100.0
Advanced clerical and service workers	2	28.6	1	14.3	2	28.6	1	14.3	1	14.3	7	100.0
Intermediate clerical, sales and service workers	22	21.4	17	16.5	48	46.6	14	13.6	2	1.9	103	100.0
Intermediate production and transport workers	19	20.0	20	21.1	41	43.2	15	15.8	0	0.0	95	100.0
Elementary clerical, sales and service workers	6	26.1	3	13.0	10	43.5	4	17.4	0	0.0	23	100.0
Labourers and related workers	31	23.9	23	17.7	51	39.2	25	19.2	0	0.0	130	100.0
Other*	50	17.0	66	22.4	122	41.5	47	16.0	9	3.1	294	100
Not employed*	2	10.5	1	5.3	11	57.9	5	26.3	0	0.0	19	100.0
Not reported	2	15.4	0	0.0	7	53.9	4	30.8	0	0.0	13	100.0
Total	**238**	**15.2**	**274**	**17.5**	**812**	**52.0**	**210**	**13.4**	**28**	**1.8**	**1562**	**100.0**

Note: * Includes mothers who are housewives

Source: Student survey

Table B1.23 Student intentions to pursue apprenticeships by mother's occupation

Mother's occupation	Yes		Maybe		No		Have not thought about it		Not reported		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
Managers and administrators	2	12.5	5	31.3	8	50.0	1	6.3	0	0.0	16	100.0
Professionals	35	9.9	56	15.8	227	63.9	34	9.6	3	0.9	355	100.0
Technicians and associate professionals	12	10.2	27	22.9	59	50.0	19	16.1	1	0.9	118	100.0
Tradespersons and related workers	6	12.5	8	16.7	29	60.4	4	8.3	1	2.1	48	100.0
Advanced clerical and service workers	4	8.0	7	14.0	33	66.0	4	8.0	2	4.0	50	100.0
Intermediate clerical, sales and service workers	41	15.7	33	12.6	150	57.5	34	13.0	3	1.2	261	100.0
Intermediate production and transport workers	5	41.7	0	0.0	4	33.3	3	25.0	0	0.0	12	100.0
Elementary clerical, sales and service workers	12	13.5	17	19.1	44	49.4	14	15.7	2	2.3	89	100.0
Labourers and related workers	26	23.0	19	16.8	51	45.1	15	13.3	2	1.8	113	100.0
Other*	63	18.8	76	22.6	135	40.2	51	15.2	11	3.3	336	100.0
Not employed*	26	18.6	25	17.9	60	42.9	26	18.6	3	2.1	140	100.0
Not reported	6	25.0	1	4.2	12.0	50.0	5	20.8	0	0.0	24	100.0
Total	**238**	**15.2**	**274**	**17.5**	**812**	**52.0**	**210**	**13.4**	**28**	**1.8**	**1562**	**100.0**

Note: * Includes mothers who are housewives

Source: Student survey

Table B1.24 Recommending an apprenticeship in their trade to friends and relatives by gender

Recommendation	Not reported	Females		Males		All apprentices	
		No.	%	No.	%	No.	%
Would recommend	1	75	64.7	547	76.8	623	74.4
Would not recommend	1	28	24.1	108	15.0	137	16.4
Would recommend in some ways and not in others	0	8	6.9	47	6.5	55	6.6
Not reported	0	5	4.3	17	2.4	22	2.6
Totals	**2**	**116**	**100.0**	**719**	**100.0**	**837**	**100.0**

Source: Apprentice survey

Table B1.25 Reasons given by apprentices for recommending apprenticeship in their trades to others

Reason	Responses	% of responses	% of responding apprentices* (n=623)
	No.	%	%
Opportunity for continuous and stable employment	268	32.6	43.0
Short-term and long-term extrinsic financial and educational benefits	200	24.4	32.1
Intrinsic rewards from the job (satisfaction, interest, enjoyment, challenge)	156	19.0	25.0
Career base establishment and progression	116	14.1	18.6
Knowledge, skills and experience	49	6.0	7.9
Various other benefits	32	3.9	5.1
Totals	**821**	**100.0**	

Note: * This percentage is the proportion of actual apprentices responding to the questions (multiple choice).

Source: Apprentice survey

Table B1.26 Post-apprenticeship plans by gender

Plans	Not reported	Females		Males		All apprentices	
		No.	%	No.	%	No.	%
Work in the trade	1	53	45.7	407	56.6	461	55.1
Start my own business in the trade		23	19.8	95	13.2	118	14.1
Continue with my job and do more studies	1	27	23.3	144	20.0	172	20.6
Get a job in a non-related area	0	7	6.0	49	6.8	56	6.7
Undertake full-time further education or training	0	4	3.5	10	1.4	14	1.7
Total number of responses	**2**	**114**	**98.3**	**705**	**98.4**	**821**	**98.1**
Not reported*		2		14	1.9	16	1.9
Total number of respondents	**2**	**116**	**100.0**	**719**	**100.0**	**837**	**100.0**

Note: * There were 16 apprentices for whom information on this question was not provided.

Source: Apprentice survey

Table B1.27 Post-apprenticeship plans by stage of apprenticeship

Plans	Not reported	First year		Second year		Third year		Fourth year		Completed	
	No.	No.	%	No.	%	No.	%	No.	%	No.	%
Work in the trade	5	63	57.3	145	54.9	123	54.7	82	54.7	43	59.7
Start my own business	2	19	17.3	50	18.6	26	11.6	16	10.7	5	7.0
Continue with my trade and do more studies	3	21	19.1	44	16.4	50	22.2	39	26.0	15	20.8
Get a job in a non-related field	1	4	3.6	16	6.0	21	9.3	6	4.0	8	11.1
Undertake full-time further education and training	0	1	0.9	7	2.6	3	1.3	3	2.0	0	0.0
Not reported	2	2	1.8	7	2.6	2	.9	4	2.7	1	1.4
Total	**13**	**110**	**100.0**	**269**	**100.0**	**225**	**100.0**	**150**	**100.0**	**72**	**100.0**

Source: Apprentice survey

Table B1.28 Most important reason given by apprentices for not recommending apprenticeship to friends and relatives

Reason	Not reported	Female		Male		All apprentices	
	No.	No.	%	No.	%	No.	%
The length of time involved	0	2	5.6	5	3.3	7	3.7
The working conditions	0	4	11.1	12	7.9	16	8.5
The working hours	1	5	13.9	8	5.3	14	7.4
More money available in other jobs	0	11	30.6	82	53.9	93	49.2
Supervisors can be hard to get on with	0	4	11.1	6	3.9	10	5.3
Working day starts too early	0	0	0	0	0	0	0.0
Do not get proper training	0	4	11.1	9	5.9	13	6.9
Other miscellaneous reasons	0	6	16.7	19	12.5	25	13.2
Not reported	0	0	0	11	7.2	11	5.8
Total number of responses	**1**	**36**	**100.0**	**152**	**100.0**	**189**	100.0

Source: Apprentice survey

Table B1.29 Apprentice suggestions for the key important strategy required to attract apprentices to their trades

Suggested actions	No. of students	%
Increase pay (including especially in first and second years, [but also in last two years] and qualified tradespersons)	506	67.0
Increase information on and promotion of benefits of apprenticeships and specific trades (via high schools and media)	89	11.8
Improve training (more and better training, 2 apprentices at a time, more practical on-the-job training for apprentices and school students, increase task variety for apprentices, provide TAFE apprenticeship training locally)	38	5.0
Increase financial assistance and incentives for apprentices (more subsidies, payment by instalments, reduction of training costs, increased allowances for training equipment or materials, provision of tools, cash incentives for good performance, fuel money, travel assistance, easier to get licence at end)	26	3.4
Improve working conditions (including better and fewer hours, less overtime, different and flexible schedules, adequate and clean uniforms, occupational health and safety, better equipment and clothing, and women-friendly environment, adequate weather policies)	20	2.6
Encourage employers to create more jobs for apprentices of all ages (including reducing red tape)	19	2.5
Shorten apprenticeship duration	16	2.1
Improve support, treatment and respect for apprentices (including better screening and monitoring bosses for suitability, more friendly and supportive bosses and staff, more job options on completion, and assistance in finding jobs and starting businesses)	10	1.3
Miscellaneous suggestions (including improve image of trade, licence the trade, focus motivation of apprentices on apprenticeship rather than other pastimes, remove profiling of students, limit apprenticeships to maintain value, not much or nothing required)	12	1.6
Unsure	11	1.5
Total	**755**	**100.0**

Source: Student survey

Table B1.30 Methods used by respondents to obtain an apprenticeship*

How apprentices obtained apprenticeship	No. of responses	% of total responses	% of responding apprentices** (n=837)
Responding to an advertisement or job offer or making direct approach to employer	351	38.7	41.9
Undertaking formal work experience or pre-vocational training	218	24.0	26.0
Making personal contacts via family, relatives, and friends	117	12.9	14.0
Previous employment or other experience with employer	112	12.3	13.4
Employment services (Centrelink, industry associations, internet services)	57	6.3	6.8
Counselling services in school	20	2.2	2.4
Not reported	33	3.6	3.9
Total	**908**	**100.0**	

Note: * Respondents reported more than one method for obtaining apprenticeships.
** This percentage is the proportion of actual apprentices responding to the questions (multiple choice).

Source: Apprentice survey

Appendix C: Occupations of parents

Fathers of apprentices

About 40% of fathers worked as 'tradespersons and related workers' (most frequently as metal fitters and machinists, structural steel and welding tradespersons, motor mechanics, electricians, carpenters and joiners and plumbers).

About 50% of the remainder was almost evenly divided between:

- managers and administrators (most frequently as farmers and building contractors)
- professionals (most frequently as teachers and accountants)
- technicians and associate professionals (most frequently as office managers, shop managers [often responsible for their own businesses], and chefs)
- intermediate production and transport workers (most frequently as truck drivers)
- and labourers and related workers (most frequently as farm hands).

In addition, there were individuals and very small groups who worked as advanced or intermediate clerical and service workers (including book-keepers, general clerks, keyboard operators, sales representatives, special care workers, fitness instructors, prison officers and travel agents). Other individuals and small groups worked as various elementary clerical, sales and service workers (including mail sorting clerks, switchboard operators, and guards and security officers).

Mothers of apprentices

In relation to mothers, 17.4% worked in professional occupations most frequently as teachers (mostly secondary school teachers) and registered nurses (including midwives). Close to a fifth worked as intermediate clerical, sales and service workers (most frequently as general clerks, special care workers, and receptionists). These two groups accounted for the greatest proportion of mothers.

Close to an eighth of mothers worked as technicians and associate professionals, most frequently as enrolled nurses and shop managers (most often responsible for their own businesses). About 7% worked as labourers and related workers (most often as cleaners and general workers), while 6% worked as managers and administrators (most often as finance managers, and child care coordinators). About the same proportion worked as advanced clerical, sales and service workers (most often as secretaries and personal assistants). Elementary clerical, sales and service workers (most frequently sales assistants) accounted for another 6% of mothers.

About an eighth of mothers were reported to be involved in home duties or not to have an occupation. If we assume that those who did not provide an occupation for their mothers meant that their mothers were also at home, then this group would represent almost a fifth of mothers.

Fathers of students

Close to a sixth of students' fathers worked either as professionals or tradespersons and related workers. These were the two largest single occupational groupings for fathers. Those who worked as professionals most frequently worked as teachers (secondary school teachers), computing professionals, accountants and engineers. Those who worked as tradespersons and related workers most frequently worked as motor mechanics, general electricians, and carpenters and joiners).

Similar proportions (around a tenth) of fathers also worked as technicians and associate professionals, and managers and administrators. Those who worked as technicians and associate professionals most frequently worked as shop managers (including those who owned their own businesses), financial dealers and advisers, office managers, project and program administrators, and police officers. Fathers who worked as senior managers and administrators most frequently worked as specialist managers, building contractors, general managers, and farmers.

Labourers and related workers represented the next largest group of fathers. Fathers who worked as labourers and related workers most frequently worked as process or production workers.

Similar proportions of fathers (just over 6%) worked either as intermediate clerical, sales and service workers or intermediate production and transport workers. Fathers who worked as intermediate clerical sales and service workers most frequently worked as sales representatives and general clerks. Those who worked as intermediate production and transport workers most frequently worked as truck drivers.

There were few fathers who worked as advanced clerical and service workers, with the most frequent of these working as care workers (that is, with children, special groups and in personal care).

Substantial groups of students did not report information on father's occupation. The reason for this is unclear as there were 19 students who were prepared to say that their fathers were unemployed or had no occupation.

Mothers of students

Professionals represented the largest occupational grouping for mothers and accounted for just over a fifth of mothers. Mothers in this group most frequently worked as registered nurses and teachers.[17] The next largest group of mothers (around 17%) worked as intermediate clerical, sales and service workers and most frequently as general clerks, personal care and nursing assistants, and receptionists.

Similar proportions (around 7%) worked either as technicians and associate professionals and labourers and related workers. The former included mothers who most frequently worked as shop managers (often responsible for their own businesses) and office managers. The latter most frequently worked as cleaners and general process or production workers.

About 6% of mothers worked as elementary clerical, sales and service workers. These mothers worked most frequently as sales or shop assistants.

There were also similar proportions of mothers (about 3%) who worked either as tradespersons and related workers and advanced clerical and service workers. Mothers in these two groups worked most frequently as hairdressers and as secretaries and personal assistants.

About a fifth of students did not report the occupations of their mothers. The reason for this is also unclear, as around a tenth were prepared to say that their mothers either stayed at home or had no occupation.

[17] The majority of students did not indicate whether mothers worked as primary or secondary school teachers.

Appendix D: Regression analysis—all students

This section contains the logistic regression results for table 4 in the main report. The following summarises the definition of each output measure for regression results:

- b – These are the estimated beta coefficients for the logistic regression equation for predicting the dependent variable from the independent variables. The prediction equation is:

$$p = 1/ (1 + \exp^{-z})$$

$$\text{where } z = b_0 + b_1*x_1 + b_2*x_2 + \ldots + b_n*x_n$$

- S.E. – These are the standard errors associated with the coefficients.
- Wald and Pr>. – These columns provide the Wald chi-square value and the 2-tailed p-value used in testing whether the coefficient is significantly different from 0.
- Summary on goodness-fit tests – This table gives different methods on goodness-fit tests and their corresponding values. We compare our model with the null model where the only predictor is the intercept.
- Testing on global null hypothesis – These are the tests conducted to test whether the model is significant in general. The global null hypothesis **BETA = 0** here is that all the coefficients are zero.

Variables with b = 0 and missing outputs are our reference groups.

Parents' occupational background

We have adopted the use of father's occupation when provided, and mother's occupation when the information for fathers is missing. This is based on the methodology used by the Australian Council for Educational Research.

In addition, occupational groups of parents were classified at ASCO one-digit level. These occupational groupings were further aggregated into five groups based on skill level defined by the Australian Bureau of Statistics. These are:

	Major group	Skill level
1	Managers and administrators	1
2	Professionals	1
3	Associate professionals	2
4	Tradespersons and related workers	3
5	Advanced clerical and service workers	3
6	Intermediate clerical, sales and service workers	4
7	Intermediate production and transport workers	4
8	Elementary clerical, sales and service workers	5
9	Labourers and related workers	5

Parents' educational background

Similarly, for our parental educational background variable, we adopted the Australian Council for Educational Research approach and used mother's educational attainment when provided, and father's educational attainment when the information for mothers is missing.

Table D.1 Regression results for predicting rejection of an apprenticeship

	DF	b	S.E.	Wald chi-sq	Pr > chi -sq	Odds ratio
Intercept	1	-2.2519	0.72	9.708	0.002	-
Father's occupation (by ASCO)						
Skill level 5	1	0.584	0.245	5.693	0.017	1.794
Skill level 4	1	0.372	0.277	1.804	0.179	1.451
Skill level 3	1	0.383	0.254	2.274	0.132	1.467
Skill level 2	1	0.054	0.268	0.041	0.840	1.056
Skill level 1	0	-	-	-	-	-
Mother's highest education level						
Did not complete school (Year 9 or lower)	0	-	-	-	-	-
Year 12	1	0.421	0.223	3.580	0.059	1.523
Trade	1	-0.141	0.228	0.380	0.538	0.869
VET/TAFE advanced diploma or diploma	1	0.540	0.248	4.758	0.029	1.716
University	1	0.184	0.197	0.870	0.351	1.202
Student's year level						
10	0	-	-	-	-	-
11	1	0.313	0.162	3.750	0.053	1.367
12	1	1.018	0.187	29.757	<.0001	2.769
Self-perceived ability level						
At a very high level	1	1.842	0.694	7.038	0.008	6.310
At a high level	1	1.294	0.638	4.121	0.042	3.649
OK	1	0.846	0.630	1.802	0.180	2.330
Not so well	1	0.938	0.691	1.844	0.175	2.556
Not very well at all	0	-	-	-	-	-
Plans to get a TER						
Yes	0	-	-	-	-	-
No	1	1.464	0.179	66.895	<.0001	4.323
Male	1	-0.976	0.141	47.811	<.0001	0.377
School location						
West	0	-	-	-	-	-
North	1	0.028	0.274	0.010	0.920	1.028
Country	1	-0.499	0.263	3.599	0.058	0.607
South	1	0.078	0.265	0.086	0.769	1.081
East	1	0.169	0.258	0.428	0.513	1.184

Model fit statistics

Criterion	Intercept only	Intercept and covariates
AIC	1533.149	1280.978
SC	1538.167	1386.364
-2 Log L	1531.149	1238.978

Testing global null hypothesis: BETA=0

Test	Chi-square	DF	Pr > chi-sq
Likelihood ratio	292.171	20	<.0001
Score	265.697	20	<.0001
Wald	209.800	20	<.0001

Type 3 analysis of effects

Effect	DF	Wald chi-square	Pr > chi-sq
Father's occupation (by ASCO)	4	9.045	0.060
Mother's highest education level	4	9.394	0.052
Student's year level	2	29.908	<.0001
Self-perceived ability level	4	17.061	0.002
Plans to get a TER	1	66.895	<.0001
Gender	1	47.811	<.0001
School location	4	11.968	0.018

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